The American Artisan
And Hardware Record

Vol. 49. No. 10. CHICAGO, MARCH 11, 1905. $2.00 Per Year.

LIBRARY PERIODICAL 1905

BOMMER SPRING HINGES

(ESTABL. 1876.)

ARE THE BEST

BOMMER BROTHERS, NY'RS. 256 to 276 CLASSON AVE. BROOKLYN, N.Y.

Plow Bolt Season is Now Here

If you want the best, send your orders to

Columbus Bolt Works,
Columbus, O.

Always On Top

Any weak spot in your roofs should be attended to now. A leaky roof can cause an immense loss on short notice. American Seal Elastic Oil Cement is sure cure. If your roof is old and cannot be soldered this is the one thing to use. American Seal Roof Paints, Metallic and Graphite, preserve and protect. None better, none just as good. Prices are right even if the quality is the very best.

Agencies: J. L. PERKINS & CO., 255 Lake St., CHICAGO, ILL.
STOCKHOFF SUPPLY CO., 107 N. Main St., ST. LOUIS, MO.

CHAIN

"American" and "Niagara"

Halter Chains—Dog Chains—Cow Chains—Coil Chains. Chains for all kinds of Machinery.

ONEIDA COMMUNITY
Oneida, N. Y.

"The man who whispers down a well
About the goods he has to sell,
Won't reap the golden, gleaming dollars,
Like one who climbs a tree and hollers."

THE ATLAS BOLT & SCREW CO.

CLEVELAND, O.

STOVE BOLTS, RIVETS, RODS

And Kindred Articles

Catalogue and Prices on Application

BLACK DIAMOND FILES AND RASPS

PERFECT—ALWAYS

TWELVE MEDALS AWARDED — TRADE MARK — AT INTERNATIONAL EXPOSITIONS

G. & H. BARNETT CO.
Black Diamond File Works PHILADELPHIA

BROWN WELDLESS COW TIES

Twice as strong as welded chain.

A sample (full length) delivered for one cent. Any Retail Dealer sending postal card request with name of Jobber secures sample prepaid.

Sole Manufacturers

The Bridgeport Chain Co., Bridgeport, Conn.

"The world does not need so much to be informed as it needs to be reminded."

EVERY MAN KNOWS WHY

Pittsburgh leads the world in the manufacture of Iron and Steel Commodities—

IT IS DUE TO HER "NATURAL ADVANTAGES."

We enjoy all of these "natural advantages" and our goods and our prices show it.

The Anthra Cinderella Oak

Is a striking example of "what can be done in Pittsburgh."

Body is 14 ga. Steel—Ransom Duplex Grate—with or without Magazine.

Find out about it—you can make good money on it.

Pittsburgh Stove & Range Co.
PITTSBURGH, PA.

Sold in Chicago at 38 and 40 Michigan Street, by W. D. SAGER.

THAT'S WHERE

That's where it catches him. That's where a poor range gets in its destructive work. That's where it affects your customer—makes him swear to boycott you in the future. A poor range means poorly cooked food. It means irregular meals and stomach troubles.

The Rival Clermont Steel Range

insures proper cooking. The oven is evenly and quickly heated at top, bottom and each corner. It's absolutely the best steel range that money can buy.

Gem City Stove Co., Dayton, O.

Manufacturers the Clermont Air Tight Hot Blast and other Stoves, and Oaks and Ranges.

M
TRADE MARK

Moore's Stoves Always Please

"IT SHOWS IN THE FINISH"

Looking for Quality

¶ There is much of your reputation as a Stove Dealer that comes from the *quality* of the Base Burner which you sell. It is the Highest Grade Stove in general use, and often, to the buyer, is the most important and costly piece of furniture in his house. It should be a perfect stove, *dependable* and *satisfactory* in every way; if not, your reputation suffers.

¶ We pledge you our reputation that Moore's Base Burners are right and dependable, and, in addition, they have that correct appearance which is so absolutely essential in attracting the eye of the buyer and clinching a sale.

¶ *Are you looking* for a better line of Base Burners for your 1905 trade? If so, let us know it early. We are placing agencies *now*.

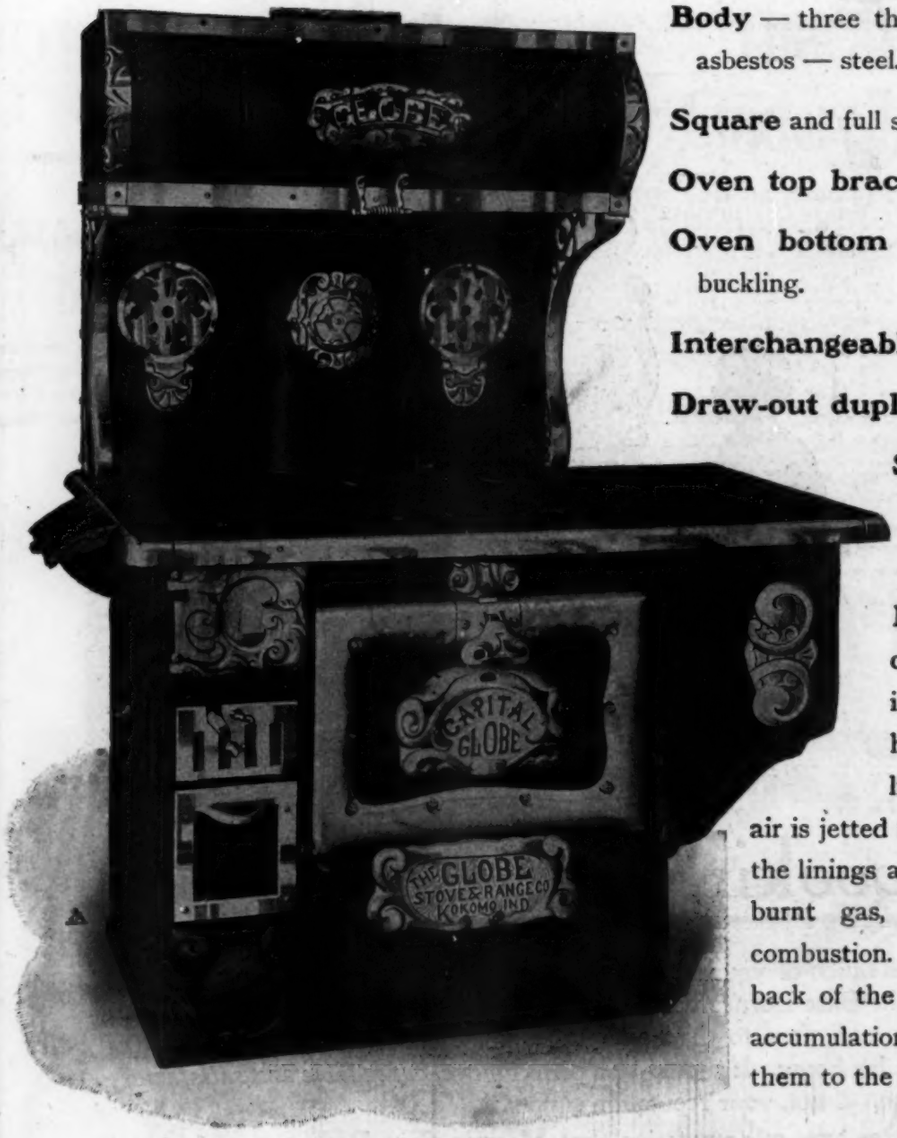
THE EASY LINE TO SELL

87 JOLIET STOVE WORKS, Joliet, Illinois.

Capital Globe Range

MADE IN KOKOMO

A new medium priced range that has proven a deserved favorite with the trade.



Body — three thicknesses — steel — asbestos — steel.

Square and full sized oven.

Oven top brace of special design.

Oven bottom guaranteed against buckling.

Interchangeable top plates.

Draw-out duplex grate, &c.

Special nickle process finish.

The Hot Blast Fire Box can be completely removed in thirty seconds. It has a heavy sectional lining. Superheated air is jetted through the slots in the linings and mixed with unburnt gas, producing perfect combustion. An air chamber back of the lining prevents the accumulation of ashes and guides them to the ash pan.

WRITE FOR CATALOGUE.

We make Steel Ranges, Steel Cooks, Heating Stoves, Hotel Ranges, and Outfits.

The Globe Stove & Range Co.

Kokomo. Indiana

Victor Steel Range

The many late improvements embodied in this new Steel Range have obtained for it the highest appreciation from the trade of any cooking apparatus ever offered.

OUR PATENTED FIRE BOX

is not alone unique, but is superior to anything of the kind.

All Our Fire Boxes Guaranteed

Dealers EVERYWHERE are delighted and unite in saying there is nothing to equal it. No other Range on the market has anything approaching it for results.

Write for circular and prices; they will interest you.

Toledo Stove & Range Co., Toledo, Ohio

DANGLER CRESCENT STOVES

Received the Grand Prize, Very Highest Award and Gold Medal at World's Fair, St. Louis

The Dangler idea in manufacturing the "CRESCENT" is to make a **Gasoline Stove** that anyone can operate with ease, and sell at the lowest price consistent with good workmanship.

It has no complicated mechanical parts; feeds gasoline direct, no generating necessary. This insures economical use of fuel. It is so simply constructed that it is always easy to keep clean.

One reason for making this stove is because it is a ready one for any kitchen. **Another reason** is that it will burn **any grade of gasoline** and always give the best results to customers. The burners or combustion tubes are constructed to give the greatest amount of heat possible. The flame is easily regulated and always the same—giving an intense, even heat. Every part is removable, including the tank, which is made with automatic filler valve. Fire can be obtained instantly, and remains the same because there are no parts to become clogged or filled up.

Dealers have good reasons for favoring the "CRESCENT" stove, as it gives excellent service and makes trade. A Trade Maker is essential to any dealer.

Dangler Crescent Stoves are constructed according to the safety requirements of the National Board of Fire Underwriters, and are on their list of permitted stoves.

WRITE FOR CATALOGS, PRICES AND PARTICULARS

DANGLER STOVE CO. Div.

AMERICAN STOVE CO. CLEVELAND, OHIO

WESTERN BRANCH, 308 No. FIRST STREET, ST. LOUIS, MO.

JOBBING AGENCIES:

JACOB RETTERER, 167 Lake St., Chicago, Ill.
JANNEY, SEMPLE, HILL & CO., Minneapolis, Minn
F. A. KLAINE CO., Cincinnati, Ohio.
L. J. WEBER, Dayton, Ohio.
HOME STOVE CO., Indianapolis, Ind.
HAMMER-BRAY CO., San Francisco, Cal.
ENTERPRISE MFG. & COMMISSION CO., Kansas City, Mo.

10 BEST REASONS Why the King Bee Air Blast

SHOULD BE IN EVERY HOME

We Are the Original Inventors of the Down Draft.

Because—It is the **Cleanest,** most **Economical,** most **Perfect Operating** and best all around stove of its class made

Because—It **does not require** an **expert** to operate it.

Because—It is mounted with our **Famous Anti-Buckling Ring,** which prevents **drum from warping.**

Because—It is **guaranteed** to be **air-tight** and will always remain so.

Because—It has an **Exposed Fire Pot,** an essential feature to insure **long life** and powerful **base heat.**

Because—It has a **Broad Deflecting Ring,** which keeps **Base** as hot as any **Hard Coal Base Burner.**

Because—It has a **Large Ash Pan.**

Because—It is **Unsurpassed** as a **Gas** and **Smoke** Consumer.

Because—It has our **Patent Perforated Puff Preventor,** which positively **prevents** all **puffing** and **explosions** so common to all other Hot Blast Air Tight Stoves.

Because—It burns **Soft Coal, Hard Coal, Coke, Slack, Wood, Cobs,** or any kind of fuel.

It will pay you to investigate the King Bee Air Blast. IT WILL SAVE ONE-HALF THE FUEL BILL.

The Stove is All Right—The Price is All Right.

IT IS A TRADE WINNER

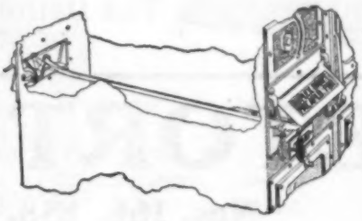
Ask for King Bee Booklet, prices and territory.

CULTER & PROCTOR STOVE CO., Peoria, Ill.

MANUFACTURERS are cautioned against using our PATENT PERFORATED PUFF PREVENTOR

THE TOP OF THE HEAP

Monarch Malleable Ranges have secured the position through superior merit, unequalled finish, a reasonable price to make them profit getters and the influence of "Our Plan" of assistance that increases the dealer's sales each year without cost to him.



The Monarch Duplex Draft works wonders both in the operation of the range and in the sale of them. Equal combustion of the fuel at each end of the firebox—uniform heat on top and around the oven. It must be seen to be fully appreciated.

Let us send you a sample. If it does not prove the finest range you ever saw and fully meet with your approval return at once at our expense for freight both ways. Ask for "Our Plan" and prices.

MALLEABLE IRON RANGE CO.

BEAVER DAM, WISCONSIN.

MILLER

STEEL-PLATE

RANGES

There are None as Good as the Best.

We are originators of the

FAMILY STEEL-PLATE RANGE

And this is our latest and most successful.

Why waste time and money in looking around for something that cannot be found? Miller Ranges are manufactured only by

The Wm. Miller Range & Furnace Co.

POST OFFICE SQUARE, CINCINNATI, O.

DETROIT VAPOR STOVES

28 STYLES

"DETROIT"

Double Ring Burner

No Generating. Perfect Combustion. No Waste of Gasoline. Pure Fire. No Smoke. No Smell. Absolutely Safe. Self-Cleaning. Our **CABINET RANGES** stay when sold as they bake and are O. K.

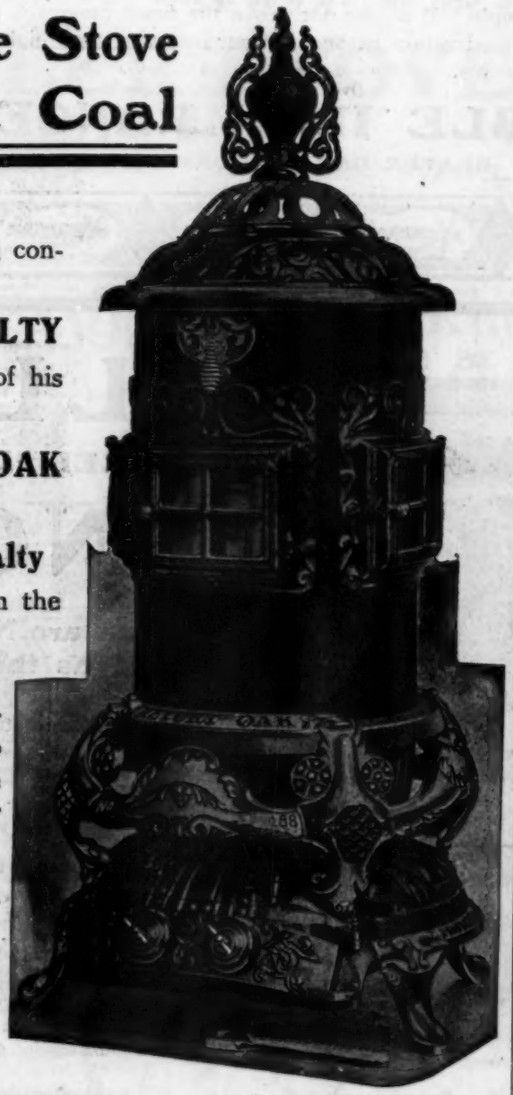
Send for Catalogue K and Secure Agency

The Detroit Vapor Stove Co.
DETROIT, MICHIGAN

RETORT OAK

Nos. 166. 188. 222

Magazine Stove for Soft Coal



The dealer who can control a

GOOD SPECIALTY

has the advantage of his competitors.

THE RETORT OAK

is the

Greatest Specialty

in heating stoves in the market.

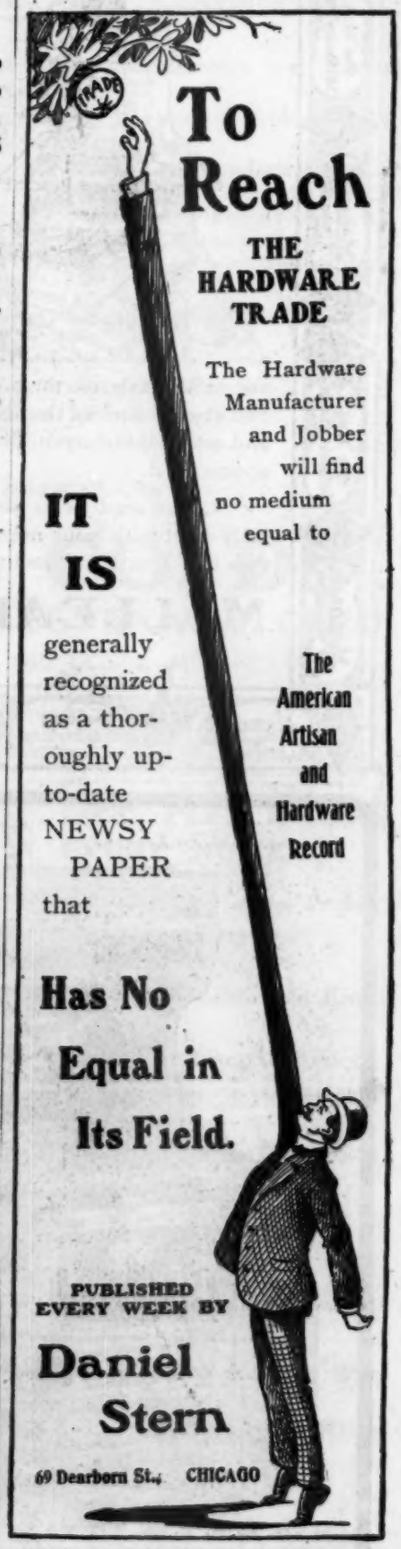
Its reputation is firmly established and no mistake can be made by making it your

LEADER

Write us for Catalogue and prices for 1905.

MARION STOVE CO.

MARION, INDIANA



To Reach

THE HARDWARE TRADE

The Hardware Manufacturer and Jobber will find no medium equal to

IT IS

generally recognized as a thoroughly up-to-date NEWSY PAPER that

The American Artisan and Hardware Record

Has No Equal in Its Field.

PUBLISHED EVERY WEEK BY

Daniel Stern

69 Dearborn St., CHICAGO

THE FOREWARD

The "Eclipse" New Low Priced Line of Cooks

Coal Cook—Four Sizes, Ovens 14x14, 16x16, 18x18, 20x20
Wood Cook—Four Sizes, Ovens 14x16, 16x18, 18x20, 20x22
Nickel Trimmed or Plain. Skirt Base or Feet Only. Duplex or Flat Grate in Coal Cook.
Write for the prices, and for complete Catalogue and Discounts.

The Eclipse Stove Co.
Mansfield, Ohio

The Flues

Are the real "works" of a steel range. The percentage of heating power extracted from the coal depends more on the scientific construction of the flues than anything else. That's why the special double flue construction of the **CHAMPION** and **MARQUART STEEL RANGES** results in so great an economy of fuel.

Have you our Catalogue?

CHAMPION STEEL RANGE CO., Cleveland, O.

J. M. LITCHFIELD, Eastern & Export Agent
227 Water St., New York City

Kundert & Fitzgerald,

Madison, S. D., write:

"We secured a good tinner through your paper."

600 Different Specialties

Household Inventions and Bath Fixtures

If you haven't our Catalog write at once.

SILVER'S BROOKLYN, 304-314 Hewes Street, 432 Broadway, **BROOKLYN, N. Y.**

Now, honestly, are you satisfied with your present line of furnaces?

It doesn't pay to lose time and energy pushing a furnace that doesn't stand up and give its users satisfaction.

Instead, why not sell

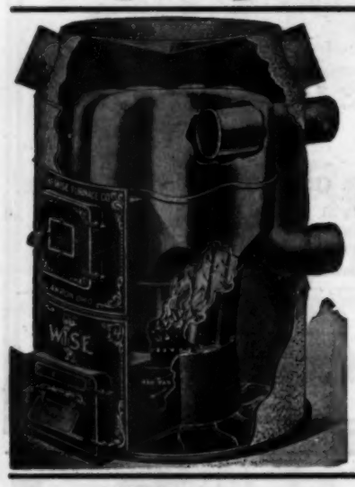
Front Rank Steel Furnaces?

Our special agency proposition will appeal to you.

Front Rank furnaces have many distinctive features—and they fulfill every claim made for them.

May we send you our agency prices and terms?

HAYNES-LANGENBERG MFG. CO., 2301-9 Lucas Ave., ST. LOUIS, MO.



Wise People

buy

Wise Furnaces

Manufactured by

The Wise Furnace Co.

Akron, Ohio.

Catalogue and discounts sent on application.

PERFECTION

Ventilating School Room Heater

for Township Schools.

Superior to any made in this country.

THE MONARCH FURNACE,

made of heavy annealed steel, has a very large radiating surface, has our patent revolving grate, is easy to operate; is absolutely gas and dust tight, and manufactured by

KRUSE & DEWENTER

427-429 E. Washington St., Indianapolis, Ind.

Send for Catalogue and Price List

School Children

are the life of a nation. Everyone agrees that to make them strong, healthy, vigorous, is to make the nation strong, healthy, vigorous.

The Grossius School-Room Ventilating Stove

does exactly what its name implies. It is a good talking stove and it sells because of its almost necessary virtues. Our catalog tells all about it.

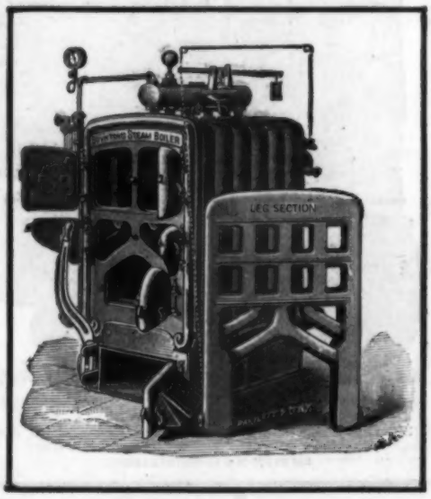
The John Grossius Furnace Co.

409-411 East 8th St., Cincinnati, Ohio

BOYNTON

FURNACES, STEAM and HOT WATER HEATERS

Have stood for an honest value for 56 years. They have always worn well—they have required very few repairs—they have given out plenty of heat with a small expenditure for fuel—they have given a steady rather than a spasmodic heat—and that's why dealers have found them a desirable line to handle. Many a dealer has found that the handling of Boynton heaters has been a big help in building him up a reputation for the best work.



Shall be pleased to send you a catalogue and price list.

The BOYNTON FURNACE CO.

147-149 Lake St., CHICAGO **207-209 Water St., NEW YORK**

TRIUMPH

HOT AIR FURNACES

Are Made in

MANY STYLES

and in

MANY SIZES

JOHN KONTNY, Western Agent

65-67 N. Desplaines St., CHICAGO

THE CRAIG-REYNOLDS FDY. CO.

DAYTON, OHIO

Mfrs. Triumph Furnaces, Triumph Hot Water and Triumph Steam Heaters

KELSEY IMPROVEMENTS

SECTIONAL VIEW
Showing inside and outside casings, and positive cap attachment over the flues through which warm air is forced to distant rooms.

We appreciate the fact that Improvement is the Order of the Age—and we are not content to let Well-Enough alone.

We are constantly striving to improve the KELSEY Warm Air Generator, endeavoring to eliminate any possible weak points, and adding to its efficiency and durability.

Our latest improvement is the Cast Iron Inner Casing.

This prevents any possible corrosion, in damp cellars or damp climates, and makes one more talking point for the KELSEY. With this Cast Iron Inner Casing, the KELSEY is still more durable.

Send for our booklet describing this Cast Inner Casing, or shall we send you our Exclusive Agency Proposition?

Free for the asking.

"There's Only ONE Warm Air Generator!"

KELSEY HEATING COMPANY, SYRACUSE, N. Y.

New York City
156 FIFTH AVENUE

Western Sales Agents:
COOK & VAN EVERA CO., 38 E. Lake St., CHICAGO, ILL.

JAMES SMART MFG. CO., Ltd., Brockville, Ont., Sole Makers for Canada

PATRIC FURNACES

ARE THE ONLY ONES MADE WITH A

COKING and SMOKE-BURNING MAGAZINE

Positively the most practical, scientific and thoroughly satisfactory device for the burning of soft coal on the market to-day.

Does not interfere in any way with the burning of HARD COAL or COKE, which are used in exactly the same manner as in any other furnace.

Affords greater accessibility to the fire and convenience in removing clinkers, slate or other foreign matter from the fire, than is possible in the ordinary round fire-pot.

SEND FOR THE "RED BOOK"

It tells all about the Patric Furnaces and will interest you. Shows why they are easier to sell than others.

The Patric Furnace Co.,
SPRINGFIELD, OHIO

THE PROGRESSION OF PROGRESS

has left many a man in the dust.

MUELLER furnaces have been kept up with the times in improvements, and are in the front row in **QUALITY, DURABILITY, ECONOMY,** and variety of styles.

MUELLER furnaces have no weak points — every feature standing out boldly for a good purpose.

Dealers will not be left in the dust if they sell the **MUELLER.** We will give the sale to any live dealer in towns where we are not now represented.

L. J. MUELLER FURNACE CO.

ESTABLISHED 1857

191 REED STREET MILWAUKEE, WIS.

Some people call them *The Furnace Men.* Some people call them **R. J. Schwab & Sons Co., of Milwaukee.** All people know that they make the most complete line of Furnaces and Fittings on the market, that their work is good work and that it is a source of pride to dealers and of comfort to users. Each furnace is built like a watch. Every part is made to fit and fits to wear. *The Furnace Men* make the famous **Gilt Edge Line** of Furnaces and Fittings. They mail very interesting and helpful descriptive matter. Have you received some?

JAHANT

CAST and STEEL RADIATORS

Ask About

The Vibratory Grate

SEND FOR A CATALOG

ROHRBACHER & ALLEN, Akron, O.

CERTAINLY

the best for the dealer, fully guaranteed, requires few repairs and price right, considering quality. Secure the agency now for the **WEIR** all-steel gas and soot consuming **FURNACE.**

THE MEYER FURNACE CO.

PEORIA, ILL.

"THE HANDY FURNACE PIPE"

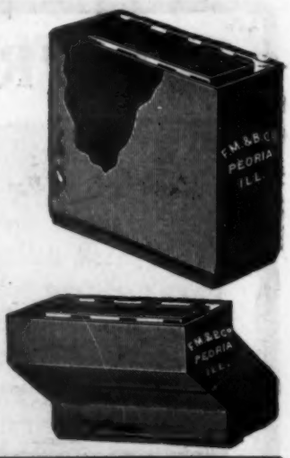
ABSOLUTELY SAFE

The saving of labor in putting it up, makes it the cheapest hot air pipe in the market.

Write for catalog.

F. MEYER & BRO. CO.

PEORIA, ILL.



Repairs! Repairs! Repairs! Repairs!

Always repairs is the wail of the cast iron furnace user. The popular furnace dealer is the one who installs

American Steel Furnaces

which are made of heavy steel, riveted tight like a boiler. You know heavy steel ranges cost much more than cast iron ones, but will **last much longer with little or no repairs.** They are clean, absolutely free from leakage of gas or smoke.

The firepots do not crack like cast iron ones and are much cheaper in the end.

The American Furnace Co.

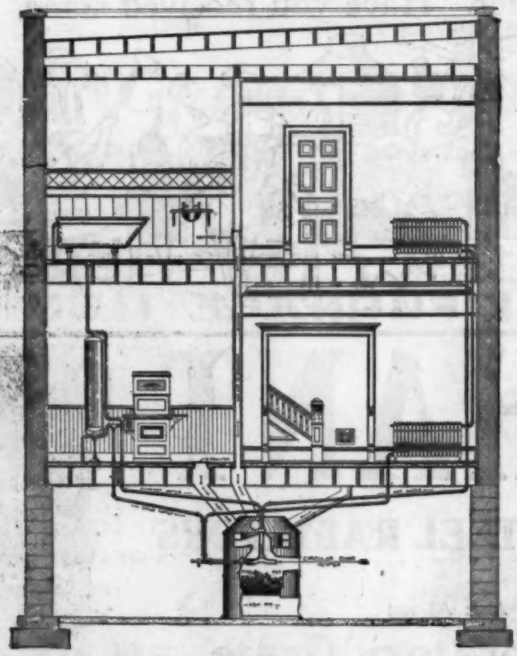
1911-13 Pine Street - ST. LOUIS, MO.

Write for prices and secure the agency before the other fellow gets it.

Large Radiators, Easy to Clean Out. Burn Hard or Soft Coal or Coke. Large Doors.

SECTION OF FURNACE SHOWING

Smith's Circular Giant



Connected to two Radiators, also supplying hot water for domestic purposes.

CHARLES SMITH COMPANY

101 LAKE STREET, CHICAGO

GOOD MONEY FOR GOOD JOBS

Is the best basis for establishing trade. We help get it. Ask us how

Canton Perfect Blast Heaters

THE BONNOT COMPANY, Canton, O.

JOS. J. SUCHANEK, ST. OLAF, IA., WRITES:

"I would not be without The American Artisan at any price."

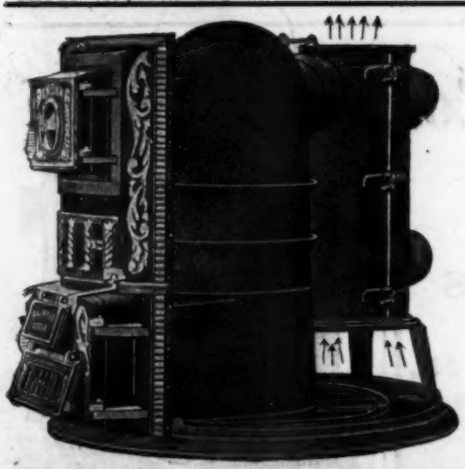
The End of all Business—Profit

¶ "No man does business for his health" is an old saying, but a very true one.

¶ There is a way to make **more profit** on what is sold, and also a way to sell **more goods** at a profit—in either case, the item of profit **is increased**. The Science of Salesmanship bestows the charm. Under its touch our hopes and ideals ripen into realization—we discover the treasure hidden in our work.

¶ Thousands are reaping these rewards and we know you want to—everyone does. Ask us for full information. Our beautiful prospectus will be sent on receipt of your request. The reading of it has been worth hundreds of dollars to others—it may be to you.

The Sheldon School, 1197 McClurg Bldg., Chicago.



The Crown, Low Down, Warm Air Furnace.

A Dollar Bill

would be worth less than two cents if the United States Treasury didn't stand ready to exchange it for a dollar in gold. Lurid advertisements, all inclusive guarantees are just as valueless unless they have the goods behind them. Oily salesmen are good talkers and good fellows, but the wise dealer waits for the goods. The

CROWN LOW DOWN FURNACE

is the real thing. Get our new furnace book and see our new inducements.

March-Brownback Stove Co.

POTTSTOWN, PA.

MONCRIEF

WARM AIR FURNACE.

Specialties
- All Cast Iron.
- Moncrief Duplex Grate.
- Large Radiating Surface.
- Double Fire Pot.
- Large Grate Surface.
- Top Return Flue.
- Simplicity, Durability, Economy.
- Cleanliness in Use.

HENRY & SCHEIBLE CO.

6-8-10 Long St., Cleveland, O.

Sales Agent—J. C. KIMMEL, 3214 East 12th St., Kansas City, Mo.

STAR SHOVELS SPADES AND SCOOPS WARRANTED

STAR SHOVEL & RANGE CO. VINCENNES, IND.

Vincennes, - Indiana.

Energy is Strength

Energy is Hope

Energy is Life

Put it in Your Advertising

Persistency is Might

Persistency is Progress

Persistency is Success

Add it to Your Advertising

EMPEROR FURNACES

FOR WOOD

SIMPLE SAFE DURABLE

ECONOMICAL IN FUEL

The Best and Cheapest Line of Wood Furnaces. Furnished for either Brick or Galvanized Iron Casing

BERGSTROM STOVE CO.

Send for Catalogue **NEENAH, WIS.**

Hart & Crouse Co.

UTICA, N. Y.

Royal Heaters

235 Water St., New York. **79 Lake St., Chicago.**

Steam, Hot Water, Hot Air Furnaces, Radiators.

THE TORRID ZONE

Steel Furnace riveted like a boiler. Dust-proof, gas tight.

WHY?

Does the TORRID ZONE made in Marshalltown sell against all competition, and business increase every year

IN PENNSYLVANIA
IN COLORADO
IN TEXAS

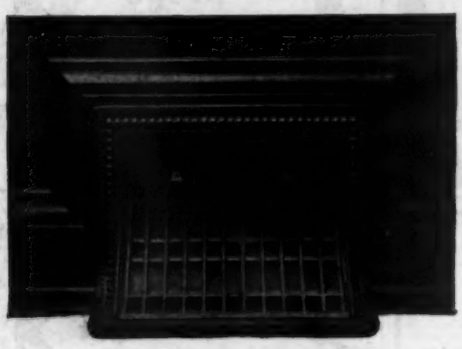
and all intervening territory as well as exceedingly large sales in Iowa, Nebraska, Illinois and Minnesota.

Write us and find out.

The Lennox Furnace Co.

MARSHALLTOWN, IOWA

Farwell, Ozmun, Kirk & Co., Northwestern Distributors.



Foster's Special No. 55

The SPECIAL

has the greatest capacity of any Wall Register now offered.

For sale in Canada by the **GUELPH FOUNDRY CO., GUELPH, ONTARIO**

C. H. FOSTER
3403 Bell Avenue
ST. LOUIS, : MO.

Overton's Adjustable Stovepipe

A telescoping stovepipe which can be locked at any desired length. Saves cutting the pipe. Anyone can adjust it without tools or trouble. Used with ordinary stovepipe. Your customers need it, especially those living at a distance. Sold by jobbers, or write to

The Dunlap Mfg. Co., Dunlap, Ia.

M. Hosterman & Son, Marshfield, Wis., write

"You may take our ad out of THE AMERICAN ARTISAN as we have bought a kit of tools. We received 8 or 10 replies to the ad and think your paper all right."

PITTSBURGH STOVE & RANGE CO.

GENERAL OFFICES AND WARE-HOUSES
ROBINSON & DARRAGH STS.
ALLEGHENY PA

PITTSBURGH, PA. Mar. 6, 1905.

The American Artisan,

Chicago, Ill.

Gentlemen:-

Enclosed find renewal for one half page ad in the American Artisan. We have had unusually good results from your paper for the last year and feel that we could not do without it at the present time.

Very respectfully,

PITTSBURGH STOVE & RANGE CO.

H W Baldwin

Sales Manager.

Best and Strongest Elbow Made

Cut is one-half actual size.

Measures only 15 inches on back.

Has slips 2 inches long.

Occupies no more space coiled than the Common Pieced Elbow.

Weighs fifteen lbs. to the dozen in 6 in. size.

Costs less for freight than any other Corrugated Elbow with same length of slip.

Made in Common Smooth, Uniform Color Iron, Refined Iron, Wellsville Polished Steel and Wood's Planished Iron.

Uniform Color Iron is designated by many manufacturers as "Blued Steel," or "Smooth Blue Steel," and is a highly finished beautiful material. On receipt of 26 cts. in stamps to pay postage we will mail you a half Elbow showing construction and will credit this amount on your first order.

We also make the BEST NESTED STOVE PIPE in the market and absolutely the BEST FURNACE PIPE AND FITTINGS

CATALOG ON APPLICATION

FURNACE MANUFACTURERS

WHY DO YOU USE CAST IRON CASING RINGS WHEN YOU CAN BUY STEEL ONES?

We make the best that is made. They cost less and are much stronger, lighter, neater and better all around than cast iron rings. Write us for samples and prices.

THE WALWORTH RUN FOUNDRY COMPANY, Cleveland, O.

The Waterloo Side Wall Register

Solves the Dry Air Problem

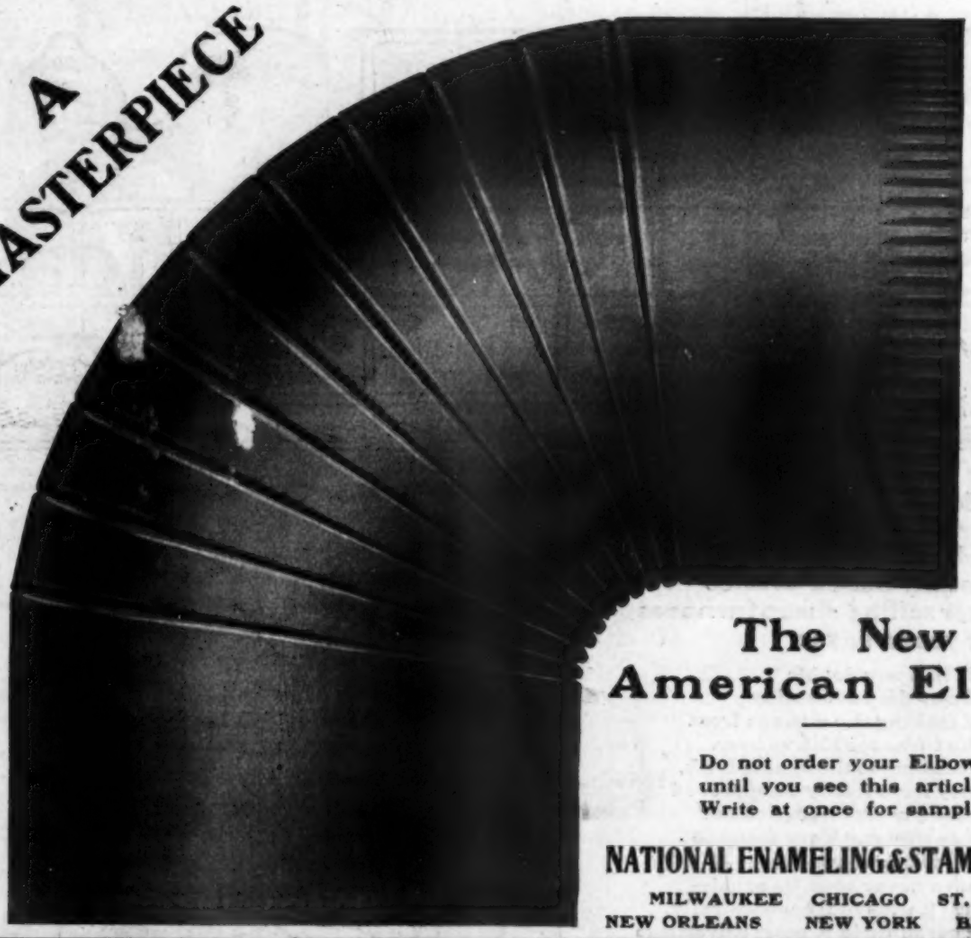
The warm air passing under the water reservoir radiates moisture throughout each apartment. Is elegant in finish and moderate in cost.

WRITE FOR CATALOG AND PRICE LIST.

WATERLOO REGISTER CO., Waterloo, Iowa.

A MASTERPIECE

TAKEN FROM LIFE



LONG ENDS

The New American Elbow

Do not order your Elbows until you see this article. Write at once for sample.

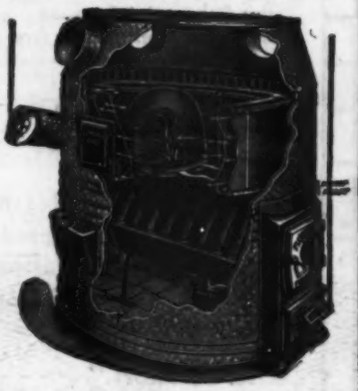
NATIONAL ENAMELING & STAMPING CO.

MILWAUKEE CHICAGO ST. LOUIS
NEW ORLEANS NEW YORK BALTIMORE

CAN you afford Mr. Dealer, to risk your **business reputation** by recommending cheap, inferior and unsatisfactory furnaces? Particularly as such a course is entirely unnecessary when you can secure an agency for

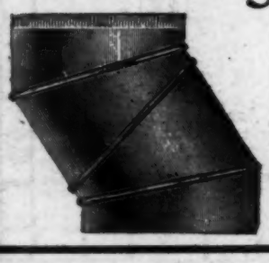
FLORAL CITY FURNACES

which are made with perfect castings by skilled workmen under careful supervision.



Monroe Foundry & Furnace Co., Monroe, Mich.

The Michigan Safety Furnace Pipe Company



THE STIFFEST AND BEST FINISHED MACHINE MADE PIPE ON THE MARKET

Manufacturers of Safety Wall Pipe and Single Pipe and Fittings in Both Tin and Galvanized Iron.

Send for our Catalogue and SPECIAL Districts.

39-41 E. Atwater Street, DETROIT, MICH.

ROUND OAK Standard of America

A letter from a furnace dealer, who took up the sale of the Round Oak Furnace after selling cheap furnaces for years, says:

"If I had any doubts about the advisability of making the change from the furnaces I have been handling to the Round Oak, they have totally disappeared after my experience so far this winter. Your furnace is a tremendous heater—I have never seen its equal—still it uses fuel economically. It certainly is a great advantage to have the draft and doors so tightly fitted. It holds the fire perfectly, and a steady, continuous fire can be kept at any speed desired. As you know, I have done fairly well with the Round Oak so far, but I shall sell a great many more this year."

If YOU can be interested in a furnace of highest quality we solicit your inquiry.
Furnace book, "Warmth and Comfort," sent by mail on request.

Estate of

P. D. BECKWITH

Fred E. Lee, Manager

Dowagiac Mich.

MAKERS OF GOOD GOODS ONLY

Doe-wah-jack: "This dining car, Fritz, has all good things to eat. What will you have?"

Fritz: "Vell, next to cabbage, I like onions the best."

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES, THEIR POSSESSIONS, AND CANADA, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES EXCEPT CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, communications and remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, MARCH 11, 1905.

Intertwined Horoscopes.

When Tiberius, the cruel Roman emperor, once grimly asked his astrologer if he were able to foretell the date of his passage to another world, the latter calmly replied, that he was extremely fortunate in the fact that his horoscope was so inextricably intertwined with that of his gracious emperor that while he could not fix the exact date, the event would occur just twenty-four hours before that of his majesty, and Tiberius being as superstitious as he was tyrannical, postponed a little joke which he had been meditating at the seer's expense.

There would seem to be a similar intertwining of the horoscopes of the various retail hardware dealers' associations and THE AMERICAN ARTISAN. The past month has been one in which every state hardware association has enjoyed phenomenal prosperity. Convention halls have been packed. All attendance records have been broken. Every association of any size has swelled its membership by at least a hundred. The magic word co-operation has been the shibboleth which has stirred dealers with enthusiasm never before experienced.

Likewise, the past month has been the most successful in the twenty-five years of unvaried success which THE AMERICAN ARTISAN has enjoyed. It has been *the* month in our history, whether you take it from an advertising standpoint, or a circulation standpoint. Our Feb. 25th issue contained more advertising pages than any of its predecessors, and our subscription books show that we have secured more new paid subscribers than in any previous single month in our history, mainly from hardware dealers interested in convention work, who have been eager to secure the best reports of the proceedings of their own association and those in other states as well. Five convention reports in a single week have not swamped us, thank you, and we have given complete reports of all conventions a week in advance of the meager and jumbled up "continued in our next" style, which seems to be a favorite of other journals.

The following table shows the amount of space devoted to these associations in the five convention issues of THE AMERICAN ARTISAN:

Association.	Date.	Pages.
Wisconsin	Feb. 4	11
South Dakota	Feb. 4	2
Nebraska	Feb. 11	11½
Iowa	Feb. 11	17
North Dakota	Feb. 11	10
Illinois	Feb. 18	16½
Colorado	Feb. 25	2
Indiana	Feb. 25	16
Minnesota	Feb. 25	7½
Kentucky	Feb. 25	3
Missouri	Feb. 25	13
Ohio	Mar. 4	19½
Total		129

It should be borne in mind that this paper contains much convention matter outside of the above conventions in these issues. For instance, in the Feb. 4th issue, we find either reports of meetings, calls, or other interesting information concerning the Retail Dealers' Hardware & Implement Association of Texas, Pacific Caost Retail Hardware Dealers' Association, New England Iron and Hardware Association, Southern Supply and Machinery Dealers' Association, San Francisco Hardware Dealers' Association, Western and Manitoba Retail Hardware and Stove Dealers' Association, Colorado Retail Hardware Dealers' Association, Nebraska Retail Hardware Dealers' Association, Iowa Hardware Association and Southern Hardware Jobbers' Association.

The Feb. 11th issue contains articles concerning the Missouri Retail Hardware Dealers' Association, Montana Hardware and Implement Dealers' Association, Kentucky Retail Hardware and Stove Dealers' Association, Illinois Retail Hardware Dealers' Association, Ohio Hardware Association, Nebraska and Western Iowa Retail Implement and Vehicle Dealers' Association, the Texas Hardware and Implement Dealers' Association.

The Feb. 18th issue contains articles concerning the Indiana Retail Hardware Dealers' Association, Connecticut Retail Hardware Dealers' Association, Minneapolis Retail Hardware Dealers' Association, Montana Hardware and Implement Dealers' Association and Ohio Hardware Association.

The Feb. 25th issue contains articles concerning the New York State Association of Hardware Jobbers, Ohio Hardware Association, Southern California Retail Hardware and Implement Dealers' Association, Pennsylvania Retail Hardware Dealers' Association, and the North Coast Retail Hardware and Implement Association.

The March 4th issue contains accounts of meetings of the Idaho Retail Hardware and Implement Dealers' Association and the Minneapolis Retail Hardware Dealers' Association.

While our contemporaries are apparently showing less interest in meetings of retail hardware dealers than ever before, THE AMERICAN ARTISAN has been

stimulated to even greater efforts than in the past. Take the little item of its lists of "fringe" alone, and its zeal in hunting out the bashful convention attendants is shown by the fact that it secured 155 names of these gentlemen at the Wisconsin convention, and 203 at the Ohio convention.

The apparent unwillingness of our contemporaries to meet the heavy telegraphic and other expenses which we assume at these gatherings and the inadequacy of their mechanical facilities to handle the large amount of copy in the short space of time that we are compelled to do at these meetings, still leaves us alone in this particular field.

In the matter of western market reports, superior technical articles, amount of space given exclusively to hardware week by week and many other points, we likewise lead. The advertising world should bear in mind that we present them an even more notable opportunity than ever before of placing their wares before thousands of dealers who are desirable buyers and who never see any other trade paper.

They should not forget that the standing of an advertiser is judged from the quality of the advertising medium he employs, and that an advertisement placed in the columns of a high-class journal, cannot fail to interest a substantial number of buyers and offers convincing proof that the advertiser is a progressive manufacturer with confidence in his goods.

Industrial Schools.

GOVERNOR DOUGLAS of Massachusetts has made a plea for industrial schools which we trust will be heeded by the American people generally and indorsed by the legislatures in other states, at least so far as his recommendation goes of having a state commission appointed carefully to consider and report upon this subject. We have never been able to accept in good faith—that is, on grounds of public advantage—the protests that certain labor organizations have made against the creation of institutions of this class. We can understand opposition coming from those desirous of safeguarding what might be termed an industrial monopoly, those who wished to limit in every possible way the number of skilled workmen that the community possessed, but we have not supposed that the leaders of the labor organizations approved of this narrow line of policy.

The citizens of Massachusetts as well as those of other American states, find themselves to-day in a critical position, according to Governor Douglas. Quite two-thirds of the boys in that state now under 10 years of age must, ten or twenty years from this time, make their living by engaging in some form of manual labor. In order that they may succeed, and obtain for their services the largest possible remuneration, they should be prepared during the years that they give to instruction for what is to be their vocation in life. Two or three generations ago the apprentice system was in common use, and the boy, after he left school, was taught in the workshops, under the immediate eye of his superiors, both the rudiments and details of the trade he had set himself to learn. At the present time no such opportunity as this is afforded, and the boy who enters a workshop or factory at the age of 14, 15 or 16 years, is put in a department at work on some special machine, and while in time he may acquire aptitude in this infinitely narrow range of service, he becomes, so far as a comprehensive knowledge of the business of production he is engaged in is concerned, hardly better informed than the machine he is operating.

There can be nothing more mentally deadening than routine service of this kind when thus wholly divorced from a knowledge of what goes before and what comes after. Industrial training cannot teach to any great extent manual aptitude; that has to be acquired by practical workshop experience; but it can impart a knowledge of the various processes of manufacture, it can form the basis for an intelligent aptitude in the work engaged in, such as cannot by any possibility be acquired through the industrial methods which are now in common use. While the limitations of existing methods are strikingly shown in factory experience, they are still more plainly brought out in those trades associated with building. Either because the rules of the trades unions impose restrictions that cannot be overcome, or because of other hindrances, only a small number of American-born boys can acquire a working knowledge of these trades, and on this account we have the curious spectacle presented of having a bonus paid to foreigners who possess this knowledge to come in and do this class of work which the sons of American citizens would be only too glad to learn and do themselves if the opportunity were offered them.

Years ago the ordinary working of the law of supply and demand, and the close relationship that existed between employer and employed, made the settlement of problems such as we have just indicated a relatively easy matter. At the present time it is not an easily settled question, and our delay in finding a proper adjustment of it threatens seriously to impair our industrial efficiency. If our producers are lacking in keen aptitude for their business, we cannot hope to hold our own in the world's competition, and with a decline in this respect on our part would go the falling off of the opportunities for employment, even of a mechanical kind, that are now held out to young men and young women.

If, by means of industrial schools, millions who are to be the workers and producers of America thirty or forty years from now could be given a sound knowledge of the principles and processes of the various industries in which they are to be engaged, there is not the least doubt that they would be in a position to earn far more than can be earned by a similar number at the present day engaged in the same lines of production. Can it be possible that the labor organizations are opposed to these larger opportunities for industrial well-being? Can any man who has at heart the welfare of his community believe that it would be for the general good if only a few were skilled workmen and all the rest were unskilled laborers? Would it not, on the contrary, be better if every man and woman engaged in gainful pursuit was a skilled worker, while that which constitutes the drudgery of life was, through invention, performed to a far greater degree than it is at the pres-

ent time by purely mechanical instrumentalities? It is toward this end that the governor's proposal would lead ,and we certainly trust that to this effort to enlighten the community there will be no short-sighted opposition.

Bills Need Analysis.

THE pessimist, in comment on our state legislatures, is apt to say that important legislation is not made, but rather mutilated by them. Good bills are prepared by citizens outside the legislative bodies, only to be amended to their hurt or ruin by the legislators. The constructive work is done outside the legislature and only destructive work within it.

That there is some truth in such criticism is unquestioned. The fault, so far as it exists, is due partly to the bad motives and partly to the ignorance of the legislators. The former fault must be remedied at the polls. The latter fault may be corrected, in part at least, by devices which some states are now attempting to introduce.

Illinois, through the Legislative Voters' League, is attempting to secure senators and representatives of higher standards, much as Chicago has at last secured a council that fitly represents the citizenship. But Illinois has no organization, either private or public, designed to aid the assembly by providing it with information or by analyzing the projects before it. Private associations of citizens are interested in special bills, but rather spasmodically than systematically.

In New York the large amount of legislation for New York City which is passed by the legislature has led the Citizens' Union to establish a special department for the investigation of all bills which in any way bear on the city's interests. A committee of fifteen lawyers, assisted by an expert secretary who gives all his time to the work, strives to make it certain that no bill will pass unless its full meaning and its ultimate efforts have been first made clear not only to the legislators, but to the interested citizens of New York. In Wisconsin the state government is itself striving to meet the need through its legislative librarian, an official whose work has already shown its value. This librarian follows the work of all state legislatures, gathers information, statistical and descriptive, of all kinds, and is prepared to give information or advice at short order upon all proposed measures. This winter he has sometimes had as many as forty calls for information in a single day.

Legislative, experts, both private and public, are much needed men. The cost of their services would be but a trifle in comparison with their value.

THE Collinsville, Ill., Retail Merchants' Association is working in the right direction to defeat parcels post legislation. We append a copy of letter sent by them to the members of Congress on this matter, and commend it to other associations, as work along this line by each member of every local association will surely defeat the pernicious bill.

"We object to the proposed parcels post or anything else that tends to keep the farmer on the farm.

"Prosperity depends on a healthy movement of raw and finished product. If the farmer comes to town, sees what the progressive world is wearing and using and hears these new products explained by our salesmen, he begins to want more and more and buys more and more, thus increasing consumption and making the wheels of commerce spin. If he can buy necessities by mail and have them delivered by mail he will stay at home, lose interest in and desire for the comforts (to him luxuries) and he will buy less and less because he wants less and less and the wheels of commerce will rust.

"As we see it, retailers not only buy and hold merchandise for the convenience of the consumer, but by showing, talking and using it ourselves, we create desire for such merchandise, and desire must precede demand.

"We are not wholly selfish in our objection to the proposed parcels post."

DURING no other period in the history of German manufacturing has there been more careful study of business conditions at large and more effort to meet these conditions than during the past twelve months. Combinations of capital and trade agreements between heretofore competing concerns have been formed with much publicity and frank admissions as to the necessity of such combinations and the part they seem destined to play in the future of manufactures and commerce.

Reports of chambers of commerce and trade publications show a continuation of that intelligent study of foreign markets and their demands in which Germany stands pre-eminent among continental nations. Possibly no other nation has at easy reach such a mass of valuable information about the trade requirements of other parts of the world as this one. The undoubted aim is to add to and to utilize this knowledge as rapidly as possible.

MANUFACTURERS' material formed more than one-half of the total imports into the United States in the month of January, and about 46 per cent for the seven months of the fiscal year which ends with January. The January record of imports of manufacturers' materials is exceptionally large, and shows a marked increase over January of last year.

The principal articles composing the imports for use in manufacturing are raw silk, wool, fibers, tin, india rubber, and hides. Of tin, in pigs, bars, blocks, etc., the imports of the seven months ending with January were 43,621,612 pounds, against 39,714,841 pounds in the corresponding months of last year, while for the single month of January, 1905, the total was 6,179,983 pounds, against 4,677,339 pounds in January of last year.

IN a recent debate in the Canadian Commons, Postmaster-General Sir William Mulock, on being questioned about the parcel post section of the public service, stated that the cost of carrying parcels and papers showed a deficit. Since the parcels post does not pay its way in Canada, it certainly will not pay its way in this country, and there is no reason why special privileges should be granted for the approbation of the mail order houses.

News Siftings

MEETINGS.

National Retail Hardware Dealers' Association—Minneapolis, March 14, 15, 16.

New England Retail Hardware Dealers' Association—Boston, March 15. Headquarters, Hotel Vendome.

Pennsylvania Wholesale Hardware & Supply Association—New York City, March 15.

Stove Founders' National Defense Association, Chicago, May 9.

National Association of Stove Manufacturers, Chicago, May 10, 11.

Arkansas Retail Hardware Dealers' Association—Little Rock, in June.

Southern Hardware Jobbers' Association—Virginia Hot Springs, Va., June 6-9. Headquarters, New Homestead Hotel.

American Hardware Manufacturers' Association—Virginia Hot Springs, June 6-9. Headquarters, New Homestead Hotel.

Pacific Coast Hardware & Metal Association—Monterey, Cal., June 14. Headquarters, Hotel Del Monte.

Rhode Island Hardware Dealers' Association—June 22.

Retail Hardware Implement & Vehicle Dealers' Association of Oklahoma—Oklahoma City, July 10.

Michigan Retail Hardware Dealers' Association—Saginaw, August 9 and 10.

National Hardware Association—Washington, D. C., November 15, 16, 17.

American Hardware Manufacturers' Association—Washington, D. C., Nov. 15, 16, 17.

Washington Hardware Association—Seattle, Nov. 17.

The Fort Payne Stove Foundry, Fort Payne, Ala., was destroyed by fire on Feb. 23d last.

The Peninsular Stove Co. have leased the five-story and basement building at 259-263 Canal street, Chicago, for five years.

C. R. Dilworth, T. Towne and J. M. Gilbert are the incorporators of the Dilworth, Gilbert & Towne Inc., New York City, capitalized at $20,000, to deal in metals.

Sara A. French is president, Harry B. French is treasurer and Wm. H. French is clerk of the Richard French Iron Works, Worcester, Mass., capitalized at $3,000, to deal in iron.

On March 7th, J. D. Kenyon of the Sheldon School of Scientific Salesmanship, delivered an address to a number of employes of the Edison Co., Chicago, on "The Science of Modern Business Building."

The Cycle Dealers' Association and Motor Trade Union of Copenhagen have arranged for an International exposition of automobiles, bicycles, motor cycles and motor boats which will shortly be held in Copenhagen.

W. G. McGhunphy, Frank Hubbs, O. T. Crow, Irwin Stewart and V. G. Echols are the incorporators of the Mountain State Gas Stove & Mfg. Co., Moundsville, W. Va., capitalized at $10,000, to manufacture gas stoves and other sheet metal articles.

H. D. Maus, Jas. M. Jolly, E. M. Chestnutt, J. B. Gibson, W. G. Ester, C. E. Thomas, T. F. Thomas and T. F. Wimberly are the incorporators of the Birmingham Stove & Foundry Co., Birmingham, Ala., capitalized at $25,000, to manufacture stoves and ranges and parts of them.

Robt. C. McKinney, Chas. E. Halliwell, Robt. B. Martin, Pierre Lorillard, Elias T. Jester, Chas. H. Sprague, Chas. B. Packard, Wm. P. Homins and J. S. Fulton are the incorporators of the Amalgamated Peat Fuel Co., New York, capitalized at $500,000.

The Globe Machine & Stamping Co., 970 Hamilton street, Cleveland, O., send us a neat little wall calendar for March, which calls attention to the fact that they make sheet metal stampings, blanking and forming dies or any specialties to order. Their Globe improved tilting tumbling barrels are in use everywhere.

The Pittsburgh Stove & Range Co., Pittsburgh, Pa., are making some important additions to their old Anshutz-Bradberry plant in order to more effectively care for their growing business. They are putting up one building which will house 120 molders and another 360x60 feet in dimensions, 7 stories in height, which will be used for warehouse purposes.

The Malleable Iron Range Co., Beaver Dam, Wis., have a plan of assistance for the trade that increases the dealers' sales each year without cost to him. The Monarch duplex draft works wonders both in the operation of the range and in its sale. It has equal combustion of the fuel at each end of the fire box with uniform heat on top and around the oven.

S. V. Reeves, Haddonfield, N. J., is now in a position to offer the trade patterns on the following stoves: No. 10 Ironsides cook stove, No. 10 Victor cook stove, Prompt ranges, all sizes, Reliance ranges, all sizes, Ideal Victor, all sizes, Centennial, all sizes, Boatman's choice, Midway range, all sizes, hotel range, all sizes, Daisy range, all sizes, and Cozy range, all sizes.

The Culter & Proctor Stove Co., Peoria, Ill., are manufacturers of the King Bee air blast, which has many features to recommend it to the trade, including the anti-buckling ring to prevent the drum from warping, exposed fire pot, broad deflecting ring, large ash pan, and patent perforated puff preventer. It burns soft coal, hard coal, coke, slack, wood, cobs, etc.

W. Richter, New York, N. Y., has invented an improvement to stoves such as are used for heating purposes and employing gas, vapors, or other oil fuel; and its object is to provide a heater which is durable in construction and arranged to provide a large heating-surface in a comparatively small space and to produce a proper circulation of the air and thorough heating thereof.

The Sheldon School of Scientific Salesmanship, 215 Wabash avenue, Chicago, send us some unusually attractive enameled blotters, which contain advertising matter of interest, and also handsome colortype pictures. One shows a colortype picture entitled "Nothing In It," from the painting of Ben Austrian; another colortype reproduction of "Meditation" from the painting of Nonnebruck and a third painting of a "Moonlight Sail" from the painting by Tyler.

The Logan Mfg. Co., Ottumwa, Ia., send us a circular describing their Logan stove pipe thimbles whose points of excellence are given as follows by the manufacturers: (1) Impossible to push stove pipe too far into the flue; (2) prevents stove pipe from coming out

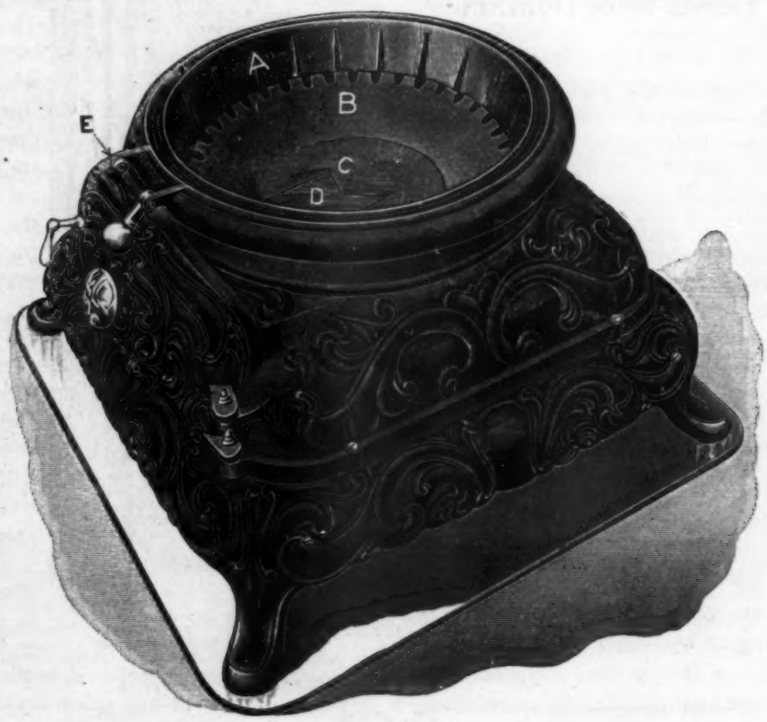
of flue; (3) prevents smoking of paper around flue; (4) prevents soot from blowing over room; (5) prevents creosote from running down the wall; (6) makes an air-tight joint where stove pipe enters the chimney and produces a perfect draft."

ATHANOR HEATERS.

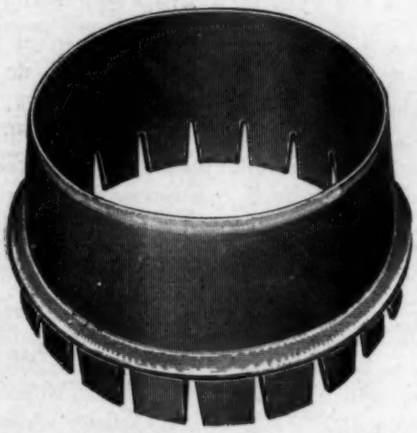
The Fiebeger Heating Co., Akron, O., are manufacturers of the Athanor heater, whose fire pot is shown in the accompanying cut.

Among the new and novel patented features of the Athanor series are the Athanor fire pot, the Athanor grate, the Athanor base air ring.

Fire pot is inverse, being an upside down fire pot, smaller at top than bottom.



Fire Pot.



Inverse Fire Pot.

The dense grate (made without openings, as solid as a stove cover) is non-shakable.

The gyral grate, flaring like a saucer, removes the ashes at its top and bottom.

The base oxygen ring supplies the flame with the proper volume of oxygen to support combustion.

These stoves have a striking, handsome panel design, forming a new series of stoves called the Athanor series, or furnace stoves, to distinguish them from the Franklins, the Base Burners, the Oaks, the Air Tights.

The special advantages of the Athanor series of stoves, as illustrated on this trade-mark (which is the exact shape of the fire pot and solid grates), are: All of the heat is applied against the outside of the stove; all of the combustion takes place on the outside of the fuel; all of the fire is confined to a narrow channel between the fuel and the fire pot; a natural fuel magazine which burns slack, pea hard coal, lignite or fine fuel more nearly to perfection than any stove yet invented; economy; complete control; intense and durable heat. It is made in three sizes round cast panel, Athanor style, three sizes round steel, Athanor style, and three sizes square, Athanor style.

STOVE SALES ARE SATISFACTORY.

The Toledo Stove & Range Co., Toledo, O., have been forced by the growth of their business to erect a commodious building, 192x74 feet in dimensions, which they will use as an office, sample room and warehouse. B. J. Taylor of this company was a recent caller at THE AMERICAN ARTISAN, office and expressed himself as greatly pleased with the excellent demand his firm was experiencing for their goods. "The Victor steel range with its patented fire box," he said, "is a victor indeed when it comes to getting orders and our other goods are not lagging behind it either."

CONCLUDES NOT TO CHANGE.

At the annual meeting of the stockholders of the Portsmouth Stove and Range Company of Portsmouth, O., the following directors were elected: F. V.

Knauss, Robert E. Calvert, Frank M. Knauss, Robert G. Bryan and John B. Knauss. The directors organized by electing F. V. Knauss, president; Frank M. Knauss, vice-president, and Robert G. Bryan, secretary and treasurer. The company is to be congratulated that Mr. L. W. Baker still remains with them, although he has disposed of his stock and consequently retires from the directory and vice-presidency. Mr. Baker will continue to look after his trade regularly as heretofore and there will be no change in that particular.

PREVENTING LOSSES FROM LIGHTNING.

Mutual insurance has taken a great hold with farmers as well as with the hardware fraternity and a number of farmers' mutual insurance companies have been formed. We were surprised recently in looking over the report of the Kossuth County, Ia., Mutual Insurance Co. to note the surprising amount of losses caused by lightning.

Various mutual insurance companies throughout the country have realized that their profitableness must bear a ratio to their ability to minimize losses from lightning, and they have been co-operating with the firm of Dodd & Struthers, 720 Sixth avenue, Des Moines, Ia., manufacturers of copper cable lightning rods, and where they have induced their subscribers to install these rods there has been a marked decrease in the amount of losses paid out for losses from lightning.

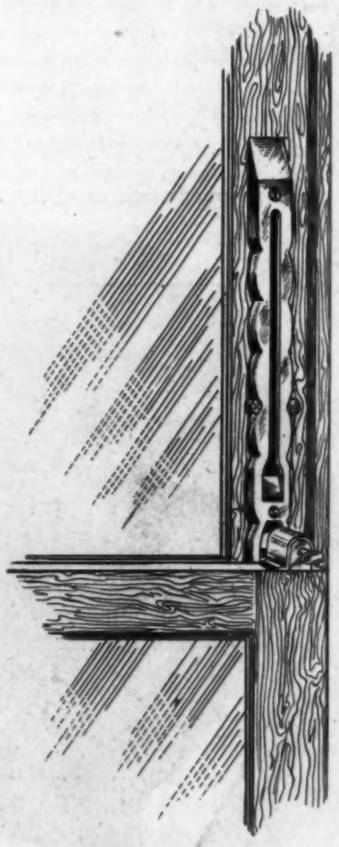
You see this is an age of mutual insurance, and all classes of citizens have come to realize the advantage of shifting the burden of paying for unexpected losses upon the shoulders of mutual or old line companies. The mutual companies in assuming this burden are naturally on the *qui vive* to prevent lightning losses, hence their attitude on this question.

Going back to this firm's lightning rod, we would say that as near as we can get at it, it is constructed on the principle annunciated by the old man who heard a number of citizens discussing the value of presence of mind when in the vicinity of a hydrophobic canine. "You gentlemen may be all right," he said; "I don't dispute that, but I prefer absence of body to presence of mind." This firm believes that the ideal lightning rod system is one in which the lightning is kept away from and not attracted toward a house. They consider as faultily constructed those lightning rods which are so built or so installed that electricity is allowed to store up in the house. The right kind of a rod acts as a telegraph line for the electricity and as the rod is in the earth and extends above the house, the electricity finds an easy way through the rod, and instead of storing up in the house, it is telegraphed to the points of the rod and escapes through the points.

Their system, backed as it is by scientific argument and by its endorsement by mutual insurance companies, to whom the use of the best system by their customers is a matter of business pure and simple, should commend it to the careful attention of the trade. They will be pleased to send literature to dealers on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

THE PERFECTION WINDOW LOCK.

The accompanying illustration shows the Perfection window lock, manufactured by the Safety Window Lock & Ventilator Co., 17-21 Quincy street, Chicago. It takes the place of the old style center sash locks which are now in use. It has the following advantages: The bolt pin in this lock is movable and when the window is shut, the bolt head drops into a socket at the lower extension of slide. By giving the bolt pin a quarter turn the sashes are drawn tightly together, as the slot in which the pin travels is shaped on a slant. The window can be locked in any of the five stops of the slide and can only be released by persons inside of room.



Perfection Window Lock.

The most simple constructed ventilator in the market. Nobody can reach over or under the partially opened window with his hands, a pronged stick, or any other device and unlatch the bolt. The bolt-head runs inside the overhanging flanges of the slide and can only be withdrawn when the window is shut and only by persons inside of the room. It permits the opening of window six inches from either top or bottom, and the ratchet will also hold it in place if only 2, 3, 4 or 5 inch openings are desired. If the bolt head is allowed to pass over the enlarged opening of the slot it will ride upon the flanges and allow the opening of window all the way. As soon as the window is shut the window locks automatically. It is impossible to forget to lock the window, it locks itself.

It can be attached on any window, no matter what size, and is so simple in construction that a child can operate it. No cutting of sashes required to attach it. A screw driver is the only tool necessary.

This firm have received several hundred strong testimonials to their Safety locks, among them being the following from E. H. Banker, first vice-president of the M. S. Benedict Mfg. Co., 109-111 Wabash avenue, Chicago: "The Safety window locks which I purchased from you recently are very satisfactory in every respect, and I think it is the best thing I have ever seen in the nature of a safety lock."

The trade will receive a handsomely embossed eight colored display easel and a neat model sash if they write to this firm. When writing kindly add: "Saw it in THE AMERICAN ARTISAN."

The Hardware Record.

American Hardware Mnfs. Assn.
Pres., J. C. Birge, St. Louis, Mo.
Vice-Pres., C. W. Asbury, Philadelphia, Pa.; Geo. W. Corbin, New Britain, Conn.; Henry B. Lupton, Pittsburgh, Pa.
Sec.-Treas., F. D. Mitchell, 309 Broadway, New York.
Ex. Com., W. M. Taussig, New York; Sam'l Disston, Philadelphia; Wm. H. Hays, Pittsburgh; John E. Harbster, Reading; Geo. P. Hart, New Britain; W. M. Pratt, Greenfield, Mass.; E. G. Buckwell, Cleveland; E. B. Pike, Pike, N. H.

Arkansas Retail Hdw. Dealers' Assn
Pres., Hamp Williams, Hot Springs.
1st. V. P., T. B. Stewart, Newport.
2d V. P., R. P. Graham, Fordyce.
Sec.-Treas., C. E. Taylor, Little Rock.
Ex. Com., J. E. Maxey, Ozark; J. A. Plummer, Marianna; R. P. Allen, Van Buren; J. L. Davis, Magnolia, one year each; Frank B. Gregg, Little Rock; C. T. Rosenthal, Batesville; J. M. Pittman, Prescott, two years each.

Chicago Retail Hdw. Dealers' Assn.
Pres., H. E. Gnadt.
V.-P., W. B. Costello.
Sec., G. R. Lott.
Collector, John Hora.
Treas. J. L. Smith.

Hardware Merchants' and Manufacturers' Assn. of Philadelphia.
Pres., Thomas Devlin.
V.-P., John R. Griffith.
S.-Treas., T. James Fernley.
Directors, W. W. Supplee, John R. Griffith, E. S. Jackson, W. C. Peters, S. Disston, E. Fisher, J. H. Ritter, T. Devlin, T. J. Fernley.

Indiana Retail Hdw. Dealers' Assn.
Pres., A. N. Shidler, South Bend.
1st V.-P., Chas. Frame, North Manchester.
2nd V.-P., Walter B. Creed, New Albany.
Sec.-Treas. M. L. Corey, Argos.
Ex Com., W. P. Lewis, New Albany; Chas. E. Hall, Indianapolis; J. L. Fulton, Portland.

Illinois Retail Hdw. Dealers' Assn.
Pres., Frank B. McKenney, Rockford.
V.-P., F. Giessing, E. St. Louis.
Sec., L. Nish, Elgin.
Treas., Geo. A. Englehardt, Chicago.
Ex. Com., Frank B. McKenney, Rockford. L. Nish, Elgin; Geo. A. Engelhardt, Chicago; Chas. Johnson, Peoria; F. F. Porter, Chicago; Wm. Bittel, Peoria; H. G. Cormick, Centralia; L. D. Ray, Belvidere; W. T. Gormley, Chicago.

Indian Territory Retail Hdw. Assn.
Pres., A. L. Severance, Durant.
1st V.-P., Geo. W. Mowbray, Tulsa
2nd V.-P., W. J. Pettee, Oklahoma City.
Secy., W. G. Johnston, Oklahoma City.

Iowa Retail Hdw. Dealers' Assn.
Pres., H. S. Vincent, Ft. Dodge.
V.-P., C. E. Haas, LeMars.
Sec., A. R. Sale, Mason City.
Ex. Com., T. A. Nichols, Burlington; D. S. Stauffer, Iowa City; E. C. Moore, Waverly; S. R. Miles, Mason City; U. S. Johnston, Tama; R. J. Breckenridge, Brooklyn; C. Clifford, Des Moines; F. C. Bollinger, Afton; W. J. Langfitt, Harlan.

Kansas Hardware Dealers' Assn.
Pres., Oscar Roehr, Topeka.
V.-P., E. J. King, Logan.
Sec.-Treas., J. A. Cole, Topeka.
Ex. Com., F. W. Bartlett, Kansas City; T. H. Kiniry, Beloit; J. M. Walters, Robinson; J. H. Hamilton, Arkansas City; T. J. O'Neill, Osage City.

Kentucky Retail Hardware and Stove Dealers' Association.
Pres., J. C. Frederick, Owenboro.
1st V.-P., U. S. Shacklett, Fulton.
2nd V.-P., George W. Buck, Louisville.
Treas., J. Steitler, Owensboro.
Sec., John R. Sower, Frankfort.

Michigan Hardware Association.
Pres., J. B. Sperry, Port Huron.
V.-P., Geo. B. M. Towner, Muskegon.
Treas., Henry C. Weber, Detroit.
Sec., Austin J. Scott, Marine City.
Ex-Com., S. Winchester, Jackson; J. G. Patterson, Detroit; E B. Standart, Holland; E. S. Roe, Buchanan; John Popp, Saginaw; W. P. Culver, Portland; K. S. Judson, Grand Rapids; J. H. Whitney, Merrill; E. J. Morgan, Cadillac; T. Frank Ireland, Belding.

Minnesota Retail Hardware Assn.
Pres., A. T. Stebbins, Rochester.
V.-P., George Evenson, St. Peter
Sec., M. S. Matthews, Minneapolis.
Treas., G. F. Duerre, Plain View.
Ex-Com., W. H. Tomlinson, Le Sueur; J. H. Smith, Minneapolis; H. R. Schroeder, St. Paul; F. W. Lucas, Litchfield; W. T. Cowing, Alexandria; C. H. Casey, Jordan; Louis Gewalt, Breckenridge; Chas. F. Ladner, St. Cloud; J. F. McGuire, St. Paul; A. T. Stebbins, Rochester; Geo. M. Evenson St. Peter.

Missouri Retail Hardware Dealers' Association.
Pres., Tayler Frier, Louisiana.
V.-P., Wm. H. Hahn, St. Louis.
Sec.-Treas., Frederick Neudorff, St. Joseph.
Ex. Com., F. A. Kannsteiner, St. Louis; W. C. Shoop, Richmond; O. W. Johnston, Marshall.

National Hardware Association.
Pres., S. A. Bigelow, Boston.
Vice-Pres., John C. Koch, Milwaukee.
2nd Vice-Pres., Brace Hayden, San Francisco.
Sec.-Treas., T. James Fernley, Philadelphia.
Ex. Com., R. M. Dudley, Nashville; W. S. Wright, Omaha; W. D. Taylor, Cleveland; F. Barker, Elmira, N. Y; J. D. Moore, Birmingham, Ala; P. E. Strauss, Boston.

Nebraska Retail Hdw. Dealers' Asn.
Pres., Max Uhlig, Holdrege.
1st V.-P., Albert Degner, Norfolk
2d V.-P., Frank Haecker, Friend.
3d V.-P., M. A. Hargleroad, Holstein.
Sec., Frank K. Barr, Lincoln.
Treas., H. J. Hall, Lincoln.

National Retail Hdw. Dealers' Asn.
Pres. W. P. Bogardus, Mt. Vernon, O.
V.-P., W. H Tomlinson, LeSueur, Minn.
2d V.-P., F. C. Moys, Boulder, Col.
Sec., M. L. Corey, Argos, Ind.
Treas., A. T. Stebbins, Rochester, Minn.
Ex. Com., T. Frank Ireland, Belding, Mich.; James N. Kline, Williamsport, Pa.; Frank F. Porter, Chicago; S. E. Jones, Richmond, Ind.; A. H. Abbe, New Britain, Conn.

N. Dakota Retail Hdw. Dealers' Asn.
Pres., H. F. Emery, Fargo.
1st V. P., Martin Jacobson, Minot.
2d V.-P., H. H. Walther, Casselton.
3rd V.-P., O. I. Butler.
Sec., C. N. Barnes, Grand Forks.
Treas., H. T. Heigesen Milton.
Members Ex. Com., W. R. McIntosh, E. E. Elliott and W. H. Pinkerton.

Ohio Hardware Association.
Pres., John F. Baker, Dayton.
V.-P., C. S. Johnson, Barberton.
Cor. Sec., Frank A. Bare, Mansfield.
Fin. Sec., A. L. Shearer, Dayton.
Treas., L. F. Stahler, Waverly.
Ex. Com., John Kramer Dayton, C. W. Jewell, Utica; W. S Perry, Zanesville; Frank W. Ingalls, Byran Will M. Crumrine, Salem; A. Boebinger, Cincinnati; John Spoerl, Hamilton; W. F. Jacobs, Youngstown.

Pennsylvania Retail Hdw. Assn.
Pres., Joseph M. Selheimer, Lewiston.
V-P., Geo. V. Thompson, Mt. Jewett.
Sec.-Treas., J. E. Digby, McKees Rocks.
Ex. Com., Joseph M. Selheimer, Lewiston; Geo. W. Hackett, Sunbury; J. E. Digby, McKees Rocks; James N. Kline, Williamsport; George L. Moore, Brownsville.

St. Louis Stove Dealers' Assn.
Pres., R. H. Myers.
1st V.-P., E. L. Wachter.
2d V.-P., G. M. Rinie.
Sec., Louis Boehl.
Treas., F. A. Kannsteiner.

Southern Hardware Jobbers' Assn.
Pres., W. M. Crumley, Atlanta, Ga.
1st V.-P., John Donnan, Richmond, Va.
2d V.-P., E. A. Peden, Houston, Texas.
Ex. Com., Bruce Keener, Knoxville, Tenn.; Chas. Ireland, Greensboro, N. C.; O. B. Barker, Lynchburg, Va.

Texas Retail Hdw. and Imp. Assn.
Pres., S. L. Erwin, Honey Grove.
Secy. & Treas., J. W. McManus. Waxahachie.
1st V.-P., R. L. Penick, Stamford.
Dir.; T. T. Clark, Ennis; H. S. Allen, Calvert; W. A. Spangler, Bonham; D. B. McCall, Waxahachie; W. M. Gunnel, Charles Hutchins, Sam Marcos.

Wisconsin Hdw. Dealers' Assn.
Pres., Ralph Burtis, Oshkosh.
V.-P., E. Tietgen, Manitowoc.
Sec.-Treas., C. A., Peck, Berlin.
Ex. Com., W. H. Busse, Milwaukee; E. R. Ramm, New London; Jas. Murphy, Racine; H. J. Krueger, Neenah.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 40 to 45 inclusive.

H. Stephani is a new Dent, Minn., hardware dealer.

John LeGrand is a new Holloway, Minn., hardware dealer.

H. C. Hanft is a new Pingree, N. D., hardware dealer.

F. A. Dingwerth is a new Odessa, Mo., hardware dealer.

P. P. Reed is a new hardware dealer at McMinnville, Ore.

F. M. Merchant, a Webster City, Ia., tinner, has discontinued.

S. Robert, Alcide, N. D., is succeeded by W. Reindeau & Co.

J. D. Fulbright has sold his hardware stock in St. Joseph, Mo.

Evans & Harris are succeeded by Russell Hursh at Maxville, Kans.

Potter & Halstern succeed to the hardware business of C. H. Sawyer.

J. P. Kruse & Co., Springdale, Wash., hardware dealers, have assigned.

G. E. Attwood has sold his hardware business in Ryan, Ia., to J. S. Burdick.

Lofgren & Co., Pelan, Minn., hardware dealers are succeeded by L. G. Johnson.

Earl McClain has engaged in the hardware and furniture business in Essex, Ia.

Brownlee Bros. have sold their hardware business in Hepburn, Ia., to Winter Bros.

Veltum & Clark, St. James, Minn., hardware dealers, have moved to Minneapolis.

Wm. Jackson has engaged in the hardware and implement business in Oakland, Ia.

A. A. and John W. Allen are a new firm of Fairmount, N. D., hardware dealers.

Davis & McLaughlin succeed Davis & Son in the hardware business at Cozad, Neb.

Case & Wick succeed Gilham & Case, hardware and furniture dealers, at Ashland, Ore.

J. W. Simpson succeeds the Brunswick Lumber & Implement Co. at Brunswick, Mo.

C. I. Fawley has succeeded to the hardware business of Fawley & Wink, in Coggon, Ia.

Thos. H. Johnson succeeds O. J. Johnson & Co., Waseca, Minn., hardware dealers.

K. R. Stewart has engaged in the hardware and crockery business in Seattle, Wash.

Lawes & Little have purchased the hardware business of J. H. Bell, in Scranton, Kas.

Wm. G. Dempstedt, a Fairmount, N. D., hardware dealer, has traded his stock for land.

A. R. Howland has purchased the hardware business of Berridge Bros., in Goff, Kas.

J. J. Vantier, F. J. Stanton and P. D. Chase are the incorporators of the New York Gas Tubing Co.,

Milbrook, N. Y., capitalized at $25,000, to manufacture gas tubing.

H. T. Davis has disposed of his interest in the Billings Hardware Co. at Billings, Mont.

Scamman, Ahl & Co. succeed Scamman & Son in the hardware business at Friend, Neb.

Mowery & Lewis have sold their hardware business in Hillsboro, Ia., to G. W. McReynolds.

Elkins & King are succeeded in the hardware business at Princeville, Ore., by W. F. King.

H. P. Temple has sold his hardware business in Chancellor, S. D., to Winne & Hornick.

Allen & Carmichael have sold their hardware business in Rothville, Mo., to H. B. Tregent.

The Bush-Phillips Hardware Co. are a new Columbus, Ga., concern capitalized at $100,000.

The Minnesota Retail Implement Dealers' Association met at Minneapolis March 7th and 8th.

The Blake Hardware Co. has been incorporated, with a capital of $9,500 in Bellingham, Wash.

H. F. Henderson has sold his interest in the Osceola Hardware & Furniture Co., in Osceola, Nebr.

Wood Bros. succeed J. A. Denkman in the hardware and implement business at Corona, S. D.

P. J. Strickler succeeds P. H. Sherman & Co., hardware and implement dealers, at Hatton, Wash.

Chas. Stolz has been admitted as a partner to L. A. Fritsche, a hardware dealer at New Ulm, Minn.

C. M. Potter has sold his hardware and implement business in Jamesport, Mo., to Abbond & Bond.

H. Richardson has purchased the hardware business of Chas. Duckworth, in Cedar Bluffs, Kas.

James Benson has sold his hardware and furniture business in Manitou, Colo., to T. H. C. Hilligos.

A. L. Davis & Son have purchased the hardware business of Slade & McLaughlin, in Cozad, Neb.

J. W. Cherry has purchased the hardware and grocery business of V. A. Johnson, in Warwick, Okla.

Bert Cold has purchased a half interest in the hardware business of C. L. Holshouser, in Dwight, Kas.

Russel Hursh has purchased the hardware and implement business of Evans & Harris, in Maxville, Kas.

Diggins & Dubois have been succeeded in the hardware business in Winthrop, Ia., by Diggins & Diggins.

Frank Reck, a Buffalo, N. Y., hardware dealer, is accused of having set fire to his store on Feb. 10th last.

The Salt Lake Hardware Co. purchased the business of the Salt Lake Saddlery Co., in Salt Lake City. Utah.

The Blake Hardware Co., Bellingham, Wash., hardware dealers, have incorporated with a capital stock of $9,500.

Chas. E. Bergh & Son have sold their hardware and implement business in Wayland, Ia., to J. D. Snider.

The Milligan Hardware & Supply Co., East Liverpool, O., was visited by fire March 1st at a damage of $130,000.

Atkinson & Blount have been succeeded in the hardware and harness business in Grainfield, Kas., by E. B. Atkinson & Co.

Thompson Bros. & Mangelson succeed Thompson & Mangelson, hardware and furniture dealers, at Round Lake, Minn.

John Peters is among the incorporators of the Palo Alto Hardware & Implement Co., Emmetsburg, Ia., capitalized at $20,000.

The Pennsylvania Wholesale Hardware & Supply Association will meet at the Hotel Astor, New York City, on March 15th next.

L. O. Johnson, a prominent hardware dealer at Arbuckle, Cal., attempted to commit suicide on Feb. 27th last by shooting himself.

J. T. Sheer and Eli G. Sheer are among the incorporators of the Sheer Bros.' Fence & Iron Co., Cleveland, O., capitalized at $10,000.

B. A. Wait, for a number of years in the hardware business at East Lynn, Ill., died on Feb. 28th at Urbana, Ill., in the 75th year of his age.

Jos. W. Sommers, Benjamin L. Sommers and Chas. W. LaPorte are the incorporators of the Peoria Fence Co., Peoria, Ill., capitalized at $2,500.

John C. Kirkpatrick, Sr., member of the Kirkpatrick Hardware Co., 9 N. Pryor street, Atlanta, Ga., died in that city Feb. 27th of heart disease.

On March 7th an involuntary petition in bankruptcy was filed in the U. S. Circuit Court against the Two Rivers Mfg. Co., Two Rivers, Wis.

L. E. Ensign, M. M. Ensign, E. C. Smith, M. F. Smith and B. L. Davis are the incorporators of the Geirs Hardware Co., Bryan, O., capitalized at $10,000.

Fred G. Foote of Foote & Fuller, Scranton, Pa., hardware dealers, died on March 2d, after a week's illness of pneumonia. He was in the 41st year of his age.

Louis B. Dailey, H. O. Coughlan and Thos. F. Barrett are the incorporators of the Electric Heating & Equipment Co., Jersey City, N. J., capitalized at $100,000.

Geo. W. Scott, a Rawlins, Wyo., hardware dealer, filed a petition in bankruptcy on March 3d last with assets of from $12,000 to $15,000 and liabilities of $20,000.

Samuel D. Ward, who died in New York city on March 4th was in the 84th year of his age. For several years, between 1841 and 1851, he was in the hardware business in Boston, Mass.

Jno. B. Murphy, Samuel O. Dugger and Marshall Clark are the incorporators of the Murphy-Dugger-Clark Supply Co., Chicago, capitalized at $10,000 to manufacture construction hardware.

B. W. Voorhies, F. O. Voorhies, E. Voorhies, G. H. Voorhies and U. Goodyear are the incorporators of the B. W. Voorhies Hardware Co., Bettsville, O., capitalized at $10,000, for the manufacture of hardware.

W. F. Tuttle, ex-Sheriff L. F. Routzahn, S. W. Printz, C. W. Minnich, C. O. Hayes and W. J. Stickney are the incorporators of the Wilbur F. Tuttle Hardware Co., Springfield, O., capitalized at $15,000.

C. A. Young and L. I. Wade, representing the Peters Cartridge Co., Cincinnati, O., attended the re-

cent tournament at Texarkana, Tex., and kept up their good work by scoring 92 and 93 per cent respectively.

Between fifty and sixty retail hardware dealers of the Montreal District have made a protest to Hon. Mr. Brodeur, the Minister of the Inland Revenue, asking him to put an end to a combination of Canadian hardware manufacturers.

John Childers, head shipping clerk of the Jones Hardware Co., Richmond, Ind., hardware dealers, died from injuries received on March 2 from an accident while performing his duties, which resulted in concussion of the brain.

The creditors of the Curtiss & Williams Co., a mail order house located at 20 Michigan avenue, Chicago, filed an involuntary petition in bankruptcy March 6th last. This would go to show that the path of the mail order house is not all roses.

The stockholders of the Freeport Hardware Co., Freeport, Ill., held their annual meeting recently and elected the following officers for the ensuing year: President. D. S. McMullen; vice-president, Antoine Billerbeck; secretary and treasurer, D. Y. McMullen.

The Taylor & Boggis Foundry Co., Cleveland, O., offer a very interesting line of light gray iron castings, including builders' hardware, dampers and damper clips, oil and gas stoves, furnace lamps, molasses gates, letter boxes and hardware specialties.

A. Tredway & Sons Co., Dubuque, Ia., send us a copy of their spring calendar No. 34 for March, 1905. This shows 112 pages of various seasonable goods such as scythes, snaths, potato and manure hooks, spades and shovels, screens, curry combs, hammocks, fishing reels, refrigerators, etc., which will prove of interest to the trade.

C. A. Young, representing the Peters Cartridge Co., Cincinnati, O., is now taking in the Texas tournaments, and is doing some shooting which is creditable even to a man of Mr. Young's reputation. Recently at Marshall, Texas, he scored 97 out of 100 under unusually difficult conditions. Luther Wade, the Peters Cartridge Co.'s representative in Central Texas, was not so far behind with 95 out of 100. The remarkable fact concerning this tournament was that every shell shot, with the exception of one box of 25, was of the Peters brand.

The Benbow-Brammer Mfg. Co., St. Louis, Mo., send us a circular showing a trio of trade winners in their "B. B." roller gearing rotary, "Brammer" rotary and "Schroeder" roller gearing rotary. The tubs of these machines are built of the best Louisiana red cypress lumber, thoroughly kiln-dried, the inner side and bottom being deeply corrugated, increasing thereby the agitation of the water. All joints are tongued and grooved and fitted with a tight-fitting lid, making it practically a steam tight tub, which is most essential in keeping the water hot, and thus hastening the cleansing of the clothes.

The reciprocating mechanism which manipulates the dasher or pin wheel as employed on either machine is simple, strong and easy to operate. These machines are handsomely finished in rosewood color, with aluminum-bronzed hoops and mechanism, and are fully guaranteed.

CYCLE BALL-BEARING STEEL FRAME GRINDSTONE.

The Richards Mfg. Co., Aurora, Ill., have recently placed a new grindstone on the market which is styled the Cycle ball-bearing steel frame grindstone and which is shown in the accompanying illustration.

Cycle Ball-Bearing Steel Frame Grindstone.

The stones are 19 to 22 inches, 2 to 2¼ inches thick and are the best quality of Berea grit. The front legs are formed of one piece heavy steel angle, and the rear legs are formed of one piece of heavy steel angle. The upper frame is constructed to form a brace for legs, making the most rigid frame possible. It is built on up-to-date mechanical principles and the weight is 85 lbs.

SUMMER LAND BOATS.

The accompanying cut shows the summer land boat manufactured by the W. H. Johnston Mfg. Co., 113

Summer Land Boat.

Edmond street, Peoria, Ill. It is made to carry two children from 6 to 12 years old.

Its wheels have rubber tires, and it runs very rapidly and quietly.

It has a clutch on the rear axle, which can be thrown out so that coasting can be done when going down a hill.

With the exception of the seats it is entirely constructed of steel and there is no danger of breakdowns.

This firm are manufacturers of a general line of novelties, such as steel lawn chairs, both swinging and rocking, also steel lawn swings, and an entirely new lawn game that will make its debut before the public under the name "Lawnodd."

NO. 10 GEM MOP.

The accompanying illustration shows the No. 10 Gem mop offered the trade by the Arcade Mfg. Co., Freeport, Ill. Every metal part is made of steel heavily tinned. It is made of one piece of steel and is furnished with either stained or plain hardwood handles waxed. It is very durable. One of these circulars will be furnished the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

No. 10 Gem Mop.

IN NEW QUARTERS.

Five years ago the Peters Cartridge Company found it necessary to remove its offices from the corner of Third and Main streets in Cincinnati to the Pickering building, facing Government Square, where they leased the entire third floor, believing that this amount of space would answer the requirements of its business for an indefinite time. Their business has, however, grown so rapidly and has reached such proportions that even these new quarters were found within a comparatively few years to be inadequate. It was therefore found necessary to take a lease for a long term of years on a part of the seventeenth floor of the First National Bank building, affording over 50 per cent more floor space than the offices in the Pickering building.

The building is of the most approved style of steel and concrete construction, finished throughout in Vermont marble and fumed quartered oak. The offices of the Peters Cartridge Company are finished in quartered oak and mahogany, and are provided with every convenience for the quick transaction of business.

SOME ATKINS "ADS."

The Hardware Trade, a London paper, has for some time past followed the scheme of picking out

some special advertiser and offering a prize to its subscriber who designed the best advertisement for that particular concern. The advertiser this paper picked out for its Feb. 3 issue was John Shaw & Sons, Wolverhampton, English agents for E. C. Atkins & Co., and hence we show herewith a number of ideas of

British retailers of the way to advertise Atkins saws. Some are very clever, but others are a trifle ornate to American ways of thinking. The "Intelligent Mechanic" ad took first prize in this competition and the "I never saw a saw saw" ad took second prize.

PHILADELPHIA DEALERS MEET.

The Retail Hardware Dealers' Association of Philadelphia held their annual meeting at 420 Commerce street, that city, recently. The following officers were elected for the ensuing year: President, N. C. Engle; vice-president, G. R. Mitchell; secretary, F. A. Mitchell; treasurer, E. W. Richards; directors, C. W. Flood, T. C. Ulmer, A. L. Agolf, F. Berlin, Jno. Orr, A. Kaiser, Geo. E. Driver, and Paul J. Devitt. Purchasing committee, F. A. Mitchell, N. E. Engle, E. W. Richards, Geo. R. Mitchell, Paul J. Devitt, John Orr and Geo. Driver.

THE PROOF OF THE PUDDING.

The J. Stevens Arms & Tool Co., Chicopee Falls, Mass., send us a circular showing Louis P. Ittel's score at the recent annual .22 calibre rifle league tournament of the United States. He made a record score of 245 by using the Stevens-Pope rifle, Stevens telescope sight and Peters .22 shot cartridges.

A STEEL GOODS ANNOUNCEMENT.

The American Fork & Hoe Co., Cleveland, O., announce that rumors to the effect that they purpose to discontinue the use of labels bearing the names and trademarks of their various works and in their place and stead to use on the product of these works labels bearing the name of the American Fork & Hoe Co. are not true, as they propose to continue to use and protect these various brands or labels and apply them to their first quality goods as heretofore. The names and brands of Ashtabula, Batcheller, Bolles, Ely, Fort Madison, Philadelphia, Geneva, Columbus, Harriman, Otsego, Utica, and Withington & Cooley Mfg. Co., and the various special labels used by these works signify superlative quality. They are a valuable asset and are so recognized by the trade. This firm will continue the practice which is highly appreciated by buyers of giving exclusive sale, so far as is possible in their particular market of the same line which they have heretofore controlled.

MACHINERY DEALERS ORGANIZE.

The National Supply & Machinery Dealers' Association was recently organized in Cleveland, O., and the following officers were elected for the ensuing year: President, E. E. Strong, Cleveland, O., of the Strong, Carlisle & Hammond Co.; first vice-president, W. A. Somers, Pittsburgh, Pa., of the Somers, Filter & Todd Co.; second vice-president, Alfred Marshall, Chicago, Ill., of the Marshall & Huschart Machinery Co. Executive committee—A. F. Brion, New York; Peter A. Frasse Co., George Puchta, Cincinnati, O.; Queen City Supply Co., C. C. Strelinger, Detroit, Mich., Geo. T. McIntosh, Cleveland, O.

BLUE RIBBON BALL-BEARING LAWN MOWER.

The Lee-Glass-Andreesen Hardware Co., Omaha, Nebr., send us a circular describing Blue Ribbon ball-bearing lawn mowers, which they are offering to the trade.

This is a ball-bearing lawn mower with patented cone adjustment, so designed as to give best bearing surface with minimum friction. The steel balls used are all of the highest grade, and are placed in dust-proof- steel-coveredcups. The wear is taken up by an ingenious patented device. By turning the shaft which runs through the center of the revolving cutter, it will be found that the left-hand cone moves backward and forward, the mechanism which produces this effect being hidden in the cutter head. Before adjusting, the screw on each cone must be loosened and after adjusting again tightened. This insures their staying in adjustment.

The driving wheels are 10 inches in diameter, and are entirely covered about 6½ inches; therefore grass cannot enter the motive power, and they are really as nearly dust-proof as can possibly be made.

The revolving cylinder is 6 inches in diameter, has five solid cast steel cutting knives, hardened and tempered in oil, and protected by malleable supports and a rod passing through the cylinder.

The dead knife is of solid cast steel, improved shape, and can be regulated to cut the grass from ⅜ to 1⅜ inches from the ground, as desired.

The ratchets, or pawls, are cast steel, noiseless in action, and are of an originality of device which insures superiority and durability.

HILL'S DRYERS AND THE HUSTLER ASH SIFTER.

The Hill Dryer Co., Worcester, Mass., send us a booklet describing Hill's clothes dryers and the Hustler ash sifters. Hill's clothes dryers are designed for use on the balcony, lawn fire escape, window balcony and roof. The swing arm of style A is made of steel tubing, and if properly put up will support a ton's weight. Style B is precisely the same as style A except that the swing arm of the latter is made of 1½-inch steel tubing, while that of the former is made of 1⅛-inch solid steel rods. The dryer tops are fastened open, and are locked to the post by a patent device which makes it impossible for them to be effected by the wind. The castings are galvanized, making them rust proof, and the arms are tastefully painted in a light chrome yellow. This firm's regular balcony dryers have four arms, each 5 ft. 6 in. long and holding 110 feet of line.

The Hustler ash sifter is a rotary sifter made of galvanized iron with heavy galvanized wire cylinder sieve; it is made in two sizes, one of which holds a hod full of ashes and is designed for stove and small furnace use. These sifters are made to fit an 18-in. iron can or a flower barrel. The larger size has fully twice the capacity of the other and is designed for use with larger furnaces. It will fit a 20-in. iron can or sugar barrel. One of these circulars will be forwarded the trade on application. When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

Heating and Ventilating

Burns & Boyland are a new Eveleth, Minn., plumbing and heating firm.

H. M. Sweet, E. C. Doyle, and J. E. McLean are the incorporators of the Sweet & Doyle Valve Co., Cohoes, N. Y., capitalized at $75,000, to manufacture valves.

The Columbus Heating & Ventilating Co., Columbus, O., formerly the Vogelgesang Furnace Co., have decided to erect a new plant, which will be a two-story brick building 120x190 feet.

The Chas. Smith Co., 101 Lake street, Chicago, have been enjoying an excellent demand for their Hero furnaces and hot water specialties, and they have recently increased their capital stock from $25,000 to $50,000.

The Keith Furnace Co., Des Moines, Ia., have just completed their new building which they will use for offices and a pattern room. The space in the main buildings which were formerly used for this purpose will be used for the foundry and assembling departments.

On March 2d, Henry Grahs of Union City, Ind., Fred Drompp, and Fred Grahs of Logansport, purchased the plant of the Miskimen Furnace Co., Logansport, Ind., which concern was declared insolvent when the secretary, E. F. Obenchain, defaulting county treasurer, left for parts unknown. Mr. Grahs, the former manager, whose knowledge of the furnace business and executive ability built up a large demand for these furnaces, will again be in charge. The consideration at which the plant has been purchased has not been made public, but its appraisal shows that its value was over $100,000.

The Great Western Heater Co. are a new Des Moines, Ia., concern which is being organized by R. J. Shank and others for the manufacture of the Phillips hot water heater. Among the special features of the heater are a center pipe, which receives all of the heat of the fire, this pipe rceiving the return water from the radiators and passes it up through the center of the fire; the cross cast section, bringing the water from the outside shell to the center pipe and increasing the rapidity of its flow, and the baffle plate, a hollow water-filled plate, retarding the direct draft and producing great heat in the water.

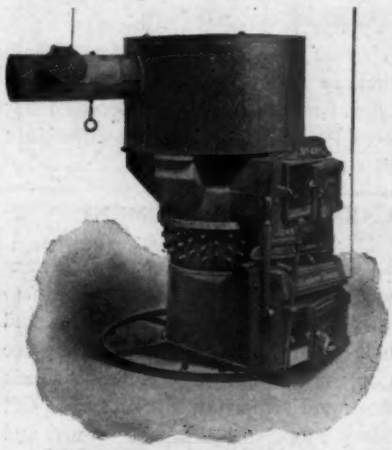
The Kelsey Heating Co., Syracuse, N. Y., are having some tests made to learn the efficiency of their Kelsey No. 30 warm air generator. One of these generators will be used in connection with a large shaft and air will be forced through it by a fan on a condition similar to those that would exist with a school building to be heated. The reason this size generator is taken, is that it is used very widely for heating school houses. The company in connection with this test will have the coal weighed so as to secure data concerning the utilization of heat units and the amount of heat transmitted to the air which passes through the heating flues.

VASES.

Kramer Bros.' Foundry Co., Dayton, O., send us their catalogue No. 2 showing their line of iron vases, settees and chairs. They place two coats of paint on all their vases, and there is no extra charge for a name plate with any name on. Their Dayton King vases are 5 feet 1 inch high to top of handles, 37 inches in diameter, 5 feet 4 inches in width, including the handles; it has a base 21 inches square, reservoir 16 gallons capacity. Their Dayton Gem is 40 inches high, 12 inches deep and 38 inches in diameter across the top of bowl. Their Dayton Queen is 42 inches high to top of handles, diameter of base is 18½ inches, and the width, including handles, is 34 inches; the capacity of reservoir is 4½ gallons. Other vases shown are the Dayton Daisy, Dayton Belle, Dayton Favorite, Dayton Jewel, Dayton Princess, and Dayton Beauty. One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

THE GROSSIUS FURNACE.

The accompanying illustration shows the inside view of the Nos. 360 and 420 furnaces, made by the John Grossius Furnace Co., Cincinnati, O. This is a heavy, durable cast iron furnace with sheet steel self-cleaning radiator, so constructed that every point is subjected to a powerful heat. The ash pit is deep and spacious, not being liable to choke up with ashes, and allowing a free circulation of air under the grate to prevent any possibility of its warping. The grate is a most simple, efficient and easy operating arrangement with upright levers. Arranged to tilt towards the front, either partly or wholly, it can easily be operated so as to dislocate any clinkers that should accumulate. In operating this grate the ash door and draft door is closed, allowing no dust or ashes to escape into the cellar. All the gear work of grate is contained in the ash pit, and no levers or cranks extend into the air-chamber of furnace. When the furnace is set up with all joints packed with asbestos cement, there is no possibility of dust escaping into the air-chamber to be drawn up into the house. The fire pot is made very heavy, and with extra large cup-joints. The construction of these cup joints relieves the fire pot and upper section of the strain caused by the expansion and contraction of the metal as it alternately warms and cools. The pin-radiating feature adds doubly to its radiating power, keeping the pot from becoming overheated, making it practically self-protecting. The fire pot is constructed nearly straight up and down, which prevents the ashes from forming on the sides and deadening the fire. The feed door or crab section is divided up by its necessary flue openings into the top radiator.



Inside View No. 360 Furnace.

Tinshop

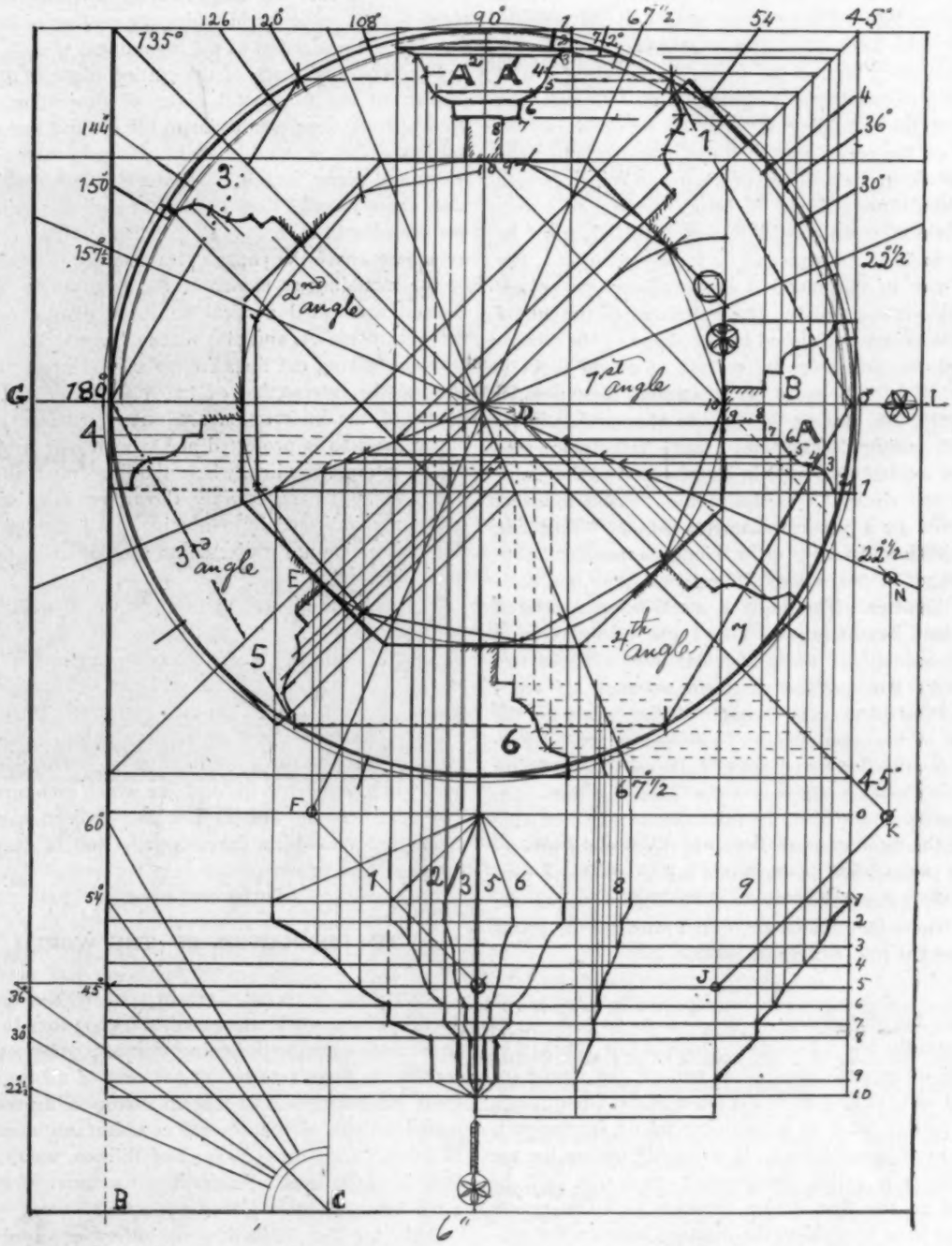
Principles of Intersection.

PART IV.

[Copyright, 1905, by Joseph P. Coleman.]

BASES OF MOULDINGS RESTING ON THE HORIZONTAL PLANE.

The drawing shows mould A in the horizontal plane to be intersected by plane.



Mould B in the vertical plane is also to be intersected by planes. Moulds A and B are the same profile. Mould A^1 is the projected view of an intersection of mould B in its revolved position, mould 6, 4th angle. Mould A^2, 2nd angle, is the projected view of mould A, intersected by a cutting plane, ED-10, perpendicular to horizontal inclined to vertical plane. Mould A^2 is also the second revolved position of mould B. The other revolved positions of mould B are indicated by the profile and the num-

bers 3, 4, 5, 6, 7, Mould A in the illustration is to remain stationary. Mould B is to swing around the circle and come back to the original position.

G-L is the ground line. 10-O indicates the wall line for each moulding. In the revolution mould B will be turned up above the paper. 9-10 is the projection of the first member of each mould from wall. Through 9-10 a line is drawn to small circle. This line represents a damper rod and the circle is the handle. Moulds A and B can be regarded as dampers. Turn the handle and the damper will revolve as a damper in a pipe, and the wall line of each mould will be vertical if the handle is revolved 90°.

Revolve mould B to vertical position by turning the handle 90°. Then swing mould B to position 180°-4. The base 9-10 of the moulding revolves on the small circle and stops on the diameter, the wall line being perpendicular to ground line. To show the shape of the moulding it must be revolved 90° to appear on the paper, and then the mould occupies the position 180-4, the wall line of the mould coincides with the ground line. Mould A, being revolved to a vertical position when mould B was revolved, must be thrown back on the paper to its former position. The curved part of the mould A is spaced off into points. The angle corners of the plane surfaces of the mould are other points established by the shape of the mould. Through the points on the surface of mould A, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, draw parallel lines parallel to ground line, cutting the surface of mould B in its revolved position. The lines I have just drawn represent a continuous mould in length equal to the diameter of the circle. A is the profile. I will intersect the mould by a vertical diameter 6-D-90. This line in projection drawing is a plane perpendicular to both planes of projection. The ground line is a horizontal diameter. The angle is 180°, being measured on a semicircumference. The angle of intersection is 90°, one-half of 180°, or a quadrant. Those two mouldings join together to form an angle of 180°. The cutting plane cuts through all the points on the surface of the mouldings. Those points are all projected on the horizontal trace, 6-D, each point being found its proper distance from ground line—that distance is shown in the profile—measuring from the wall line to face of mould. O-1 is the extreme projection, 2 is projected in the same point, 10-O are projected in ground line at D. The other points are found where the parallel line drawn through the points intersect the intersecting line 6-D.

PATTERN.

Space the distances 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 on a straight line as shown. Draw a line through O parallel to ground line. That part of the mould indicated by O is tangent to the paper at the line through O on pattern lines as a moulding by its formation is made up of parallel bends, in flattening out on the paper, which is called development, each line will be parallel to the line drawn through O. The spaces between lines is equal to the distance between the consecutive points on the surface of the mould, as shown; therefore the lines are properly shown in development. Each projected point will be found on the pattern sheet in its proper place, on the line 6-D continued principle. The intersection between two mouldings of the same profile, a butt joint develops into a straight line. The base of each mould lies in the same horizontal plane. Next problem:

Revolve mould B to a vertical position and swing back to A^2, 2nd angle.

In this position the problem is the ordinary square mitre intersection between two mouldings same shape, joining so as to form a right angle in plan. The lines previously drawn through the points in the surface of mould A will be used. The angle of intersection is one-half of a right angle 45°. The cutting plane is the line E-D-10. To read the position of the cutting plane for all problems in which the cutting plane cuts through the projection of the mouldings.

The horizontal trace of the cutting plane is perpendicular to the horizontal plane of projection. The vertical trace is perpendicular to the ground line. The cutting plane is then stated. Perpendicular to the horizontal plane, inclined to the vertical. I will now state those parallel lines drawn through the points on the surface of the mould A are called auxiliary planes, extending above the paper at least as far as the height of the moulding as shown at 180-4, 3d angle, mould B, and are called vertical auxiliary planes, passing through mould A, and also through mould B. Those auxiliary planes cut lines from the intersecting planes because the intersection of two planes is a line, two points of the intersection are on the surface of the paper, 10-9-10 is projected at D, point 9 is projected on the intersecting line, where the line drawn through 9 intersects it being plainly shown on the drawing, but is not indicated by a number. All the points of the intersection are projected on the line D-E, the 45° mitre line.

The distance of each point from the ground line is equal to the distance of each point on the surface of the mould from the wall line, as shown profile A. O. at top of mould is projected at D on the ground line, center of circle. O-1 is the extreme projection. Points 1-2 are projected in the same point. One point answers for 7-6, also 9-8 in one point. The auxiliary lines being parallel to ground line which each auxiliary line intersects the line D-E is the projection of the point through which the auxiliary line is drawn in the profile as shown.

(To be continued.)

TIN PRODUCTION OF THE WORLD.

According to recent German returns, the tin production of the world amounted to 93,093 tons in 1903, an increase over the preceding year of 2,916 tons. According to these returns, 75 per cent of all tin comes from southeastern Asia, the following being the estimated output of the several colonies and countries: Malacca, 54,797 tons; Banca and Billiton, 20,060 tons; Bolivia, 9,500 tons; Australia, 4,191 tons; Cornwall, 4,150 tons; all other places, 395 tons.

Although the production of tin has increased regularly from year to year, the output is not sufficient to supply the demand, as the stock on hand in the most important tin markets has constantly decreased. The

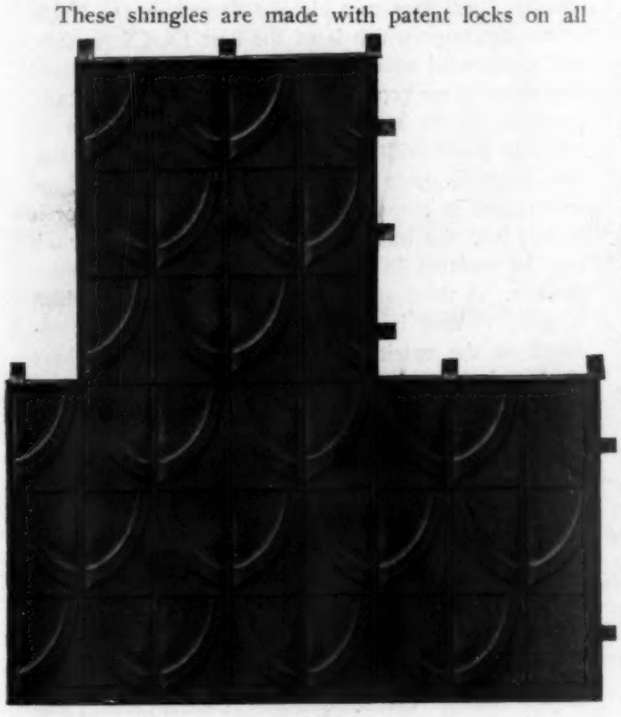
United States consumes 43 per cent of the total tin production; Great Britain, 28 per cent; the other European countries, 22 per cent, and India and China together, 7 per cent. It is surprising that the United States, which during recent decades has made such enormous progress in exploiting its mineral resources, is not yet a factor in the production of tin, although considerable deposits are said to exist in South Dakota, Wyoming, and in North and South Carolina.

F. & V. GOTHIC METALLIC SHINGLE.

Friedley & Voshardt, 194-204 Mather street, Chicago, are manufacturers of the F. & V. Gothic metallic shingle shown in the accompanying illustration.

It is made in galvanized and copper in sheets 22x44 inches, and in tin, Worcester grade, in sheets 18x21 inches.

These shingles are made with patent locks on all



F. & V. Gothic Metallic Shingle.

four sides; the cleats being separate, allow for expansion and contraction. The simplicity of the lock makes the roofing one that is put on quickly and cheap, and being made in sheets there are fewer joints than in most shingles that are on the market. The stamping is very bold and the shape of the shingles shed the water very readily.

ELBOW PATENT IS SUSTAINED.

Ferdinand Dieckmann, Cincinnati, O., is sending an important notice to the trade containing the following statement:

"We hereby wish to notify jobbers in particular and dealers in general that our patent No. 540,580, issued to Ferdinand Dieckmann under date of June 4, 1895, was sustained by a decree entered February 9, 1905, in the United States Circuit Court, Southern District of Ohio, Western Division in Case No. 5,729. All elbows manufactured by us under said patent are plainly stamped with the signature of the patentee and manufacturer as trade mark. When purchasing elbows it is well to remember that our elbow is a patented article and there is none genuine without signature."

NOTES AND QUERIES.

STAR VENTILATOR.

From F. E. Schmidt & Co., Gillespie, Ill.

Where can we buy the Star ventilator?

Ans.—Merchant & Co., Philadelphia and Chicago.

BABCOCK'S FIRE EXTINGUISHERS.

From "Reader," Chicago.

In response to query of A. E. Glick, Annapolis, Ill., would state that he can buy Babcock's fire extinguisher from the American La France Fire Engine Co., 373 Wabash avenue, Chicago, Ill.

MOSAIC TILES.

From Beverly & Schneider, Marion, O.

Where can we obtain mosaic tiles?

Ans.—Billings Marble & Tile Works, Troy, N. Y.

ENCAUSTIC TILES.

From Beverly & Schneider, Marion, O.

Where can we buy encaustic tiles?

Ans.—Star Encaustic Tile Co., Pittsburgh, Pa., and the U. S. Encaustic Tile Works, Indianapolis, Ind.

ENAMELED TILES.

From Beverly & Schneider, Marion, O.

Where can we get enameled tiles?

Ans.—Merrimac Ceramic Co., Newburyport, Mass.; Tiffany Pressed Brick Co., Baltimore, Md.

MARBLE TILES.

From Beverly & Schneider, Marion, O.

Where can we get marble tiles?

Ans.—Billings Marble & Tile Works, Troy, N. Y.; Burlington Mfg. Co., Burlington, Vt.; Daniel L. Grosscup, Philadelphia, Pa.; Fairhaven Marble & Marbleized Slate Co., Fair Haven, Vt., and Sherman & Flavin, 2505 State street, Chicago, Ill.

BRASS STRAINER CLOTH.

From Stuber & Kuck, Peoria, Ill.

Where can we obtain brass strainer cloth?

Ans.—Wm. Cabble Excelsior Wire Mfg. Co., 42 Fulton street, N. Y.; Cheney Bigelow Wire Works, Springfield, Mass.; Michigan Wire & Iron Works, Detroit, Mich.; Howard & Morse, New York, N. Y.; Ed. Darby & Sons, 233 Arch street, Philadelphia, Pa.; Clinton Wire Cloth Co., Clinton, Mass., and Gilbert & Bennett Mfg. Co., Georgetown, Conn.

HOT WATER HEATERS.

From Koch Bros., New Baden, Ill.

Would like address of firms making hot water heaters?

Ans.—American Radiator Co., Chicago, Ill.; Boynton Furnace Co., Chicago, Ill.; Monroe Foundry & Furnace Co., Monroe, Mich.; L. J. Mueller Furnace Co., Milwaukee, Wis.; Richardson & Boynton Co., New York; Craig-Reynolds Foundry Co., Dayton, Ohio, and John Kontny, 65 N. Desplaines street, Chicago.

WIND MILLS.

From Jaehning Bros., Redwood Falls, Minn.

Would like addresses of manufacturers of windmills?

Ans.—Challenge Wind Mill & Feed Mill Co., Ba-

tavia, Ill.; Fairbanks, Morse & Co., Franklin and Monroe streets, Chicago, Ill.; Flint & Walling Mfg. Co., Kendallville, Ind.; Hess, Snyder & Co., Massillon, Ohio; Marseilles Mfg. Co., Marseilles, Ill.; Mast, Foos & Co., Springfield, Ohio; Moline Pump Co., Moline, Ill.; Springfield Machine Tool Co., Springfield, O.

WATER HEATERS FOR USE IN FURNACES.

From Koch Bros., New Baden, Ill.

Where can we get hot water heaters for use in furnaces?

Ans.—Meyer Furnace Co., Peoria, Ill., and Chas. Smith Co., Chicago; F. D. Stolz, Chicago.

CAST IRON BAKE OVENS.

From Geo. F. Duerre, Plainview, Minn.

Where can we buy cast iron bake ovens?

Can any of our readers answer this question?—Ed.

BLUE STEEL.

From Dunlap Mfg. Co., Dunlap, Ia.

Where can we secure blue steel?

Ans.—Interstate Steel Co., Brackenridge, Pa.

ITEMS.

A tinware factory has been opened at Winona, Minn., by the Behrens Manufacturing Co.

The Ashland Sheet Mill Co., Ashland, Ky., will resume operations after an extended strike.

The Standard Stamping Co., Buffalo, N. Y., are looking for a new factory site in that city.

The Enterprise Plumbing & Tinning Co. has been incorporated in Seattle, Wash., with a capital of $6,000.

W. H. B. Ward has resigned as superintendent of the Struthers' plant of the American Sheet & Tin Plate Co., Struthers, O.

Wm. Y. Bogle, C. M. Ams, F. D. H. Cobb and Geo. Cobb are the incorporators of the Sanitary Can Co., Fairport, N. Y., capitalized at $150,000.

The Columbian Enameling & Stamping Co., Terre Haute, Ind., are erecting an addition to their warehouse 64x140 feet, four stories in height.

S. Breckstone, P. Glesser, and V. Kassel are the incorporators of the Empire Tinware Co., New York, capitalized at $40,000, for the manufacture of tinware.

The Akron Mfg. Co., Akron, O., will increase their capital stock from $30,000 to $50,000. Their line of goods includes tin, sheet brass and sheet metal articles.

W. Y. Boyle, T. M. Ams and G. W. Cobb are the incorporators of the Sanitary Can Co., New York, capitalized at $150,000, for manufacturing cans and metal goods.

The Berger Mfg. Co., Canton, O., advise the trade that their specialties are: Berger's Classik metal ceilings, all kinds of steel and iron roofing, corrugated iron, tin plate, black and galvanized sheets, solder, cornices, finials, eave trough and hangers, conductor pipe and sheet metal architectural work.

The stockholders of the McKeesport Tin Plate Co., McKeesport, Pa., held their annual meeting recently and re-elected the old board of directors, who in turn elected the following officers for the ensuing year: President, E. R. Crawford; vice-president, E. P. Douglass; secretary, H. M. Clark; treasurer, E. W. Pitts, and general manager, W. L. Curry.

The Star Enameling & Stamping Co., Pittsburgh, Pa., send us a copy of their new illustrated catalogue for 1905, which they would be pleased to mail to the trade on application. This firm's line of goods includes enameled ware, all standard styles of dinner pails, a full line of japanned goods, wash boilers, wash boiler covers, pot covers, pie plates, pudding pans, sauce pans, preserving kettles and other plain tin, heavy polished, japanned, galvanized, copper and enameled sheet metal goods. They advise us that they will quote prices on tinware, japanned ware, galvanized ware and gray mottled enameled ware upon the request of the trade.

The Western Tinware Co., 1003 Farnam street, Omaha, Neb., send us a circular describing the Nebia cream separator which is of the best IXXX tinplate, and guaranteed against leakage. It is so constructed that there is no hoop on the bottom to get loose and come off, as the bottom is a part of the separator itself and wired with a quarter inch rod as is the top. The cover is made with a separable strainer in the center, and so constructed that it is impossible for it to fall into the milk, it is said. If desired a cloth may be inserted in the strainer, forming a double strainer. A three-quarter inch separable faucet which is easily cleaned is supplied. All separators are soldered on the outside, as well as on the inside, are nicely painted and are stencilled.

The St. Paul Roofing Cornice & Ornament Co., St. Paul, Minn., send us a very attractive catalogue devoted to their line of steel ceilings, side walls and ornaments. These ceilings are models of grace of outline, sharp, bold or moderate in relief and scientifically accurate. Harmony and contrast have been studied to build up the parts in a continuous and harmonious whole, inviting, warm and gratefully pleasing. The manufacturers point out that in schools, halls and churches or other places where oratory is practiced, the vibrant and resonant qualities of metal ceilings materially augment the acoustic properties.

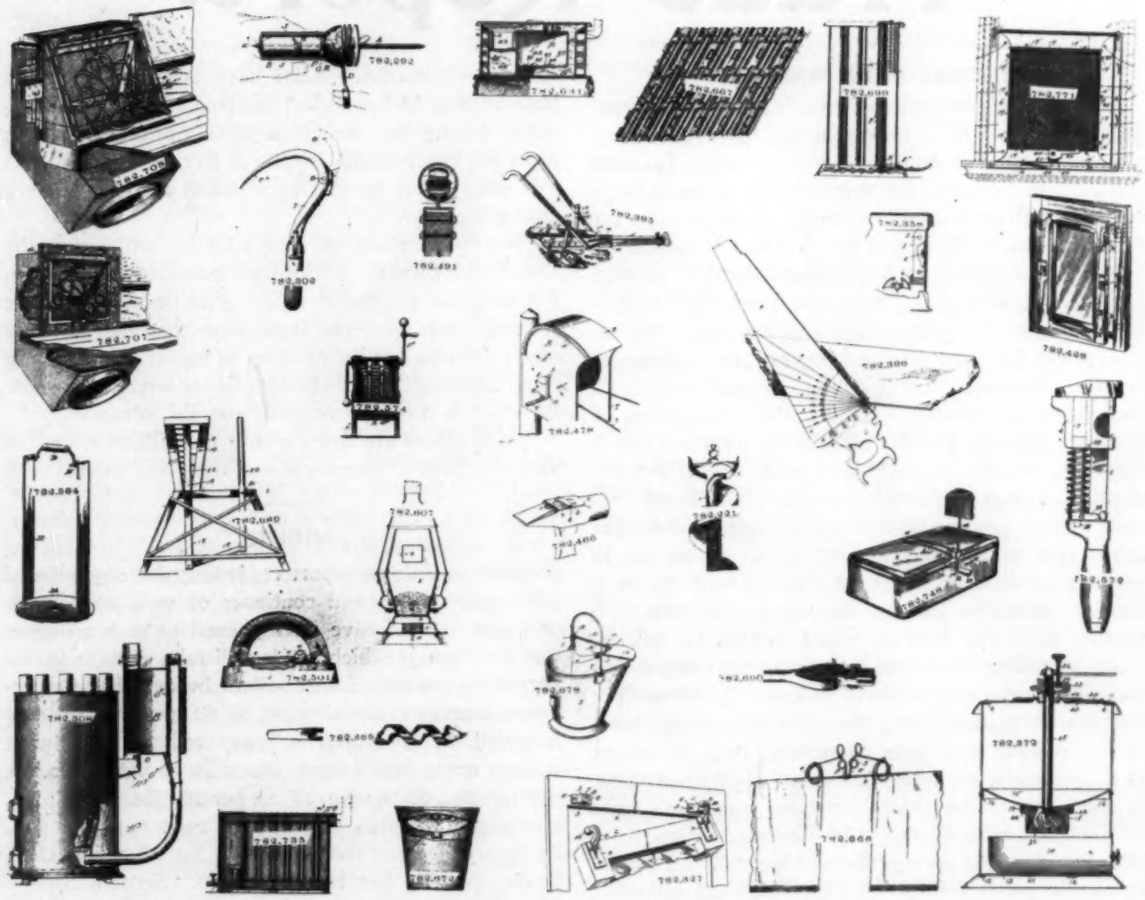
These ceilings may be perfectly plain, or strikingly ornate; which ever style is most preferable for dovetailing in with the general artistic design of the apartment where they are to be used. If desired the centers may be ventilated.

Pages 5 and 6 of this volume show sections of the window department, cutting department, cornice department, stock department, stamping department and skylight department of this concern, also a picture of the corrugating machinery in use.

The trade will find the greatest variety of designs in this volume. Nos. 3017 and 3003 are comparatively simple, No. 3028 and 3030 are beautifully ornate.

Besides the ceilings this volume shows a line of beams and mouldings, panel and gable ornaments, etc. No. 1163 for example, being a strikingly rich and attractive design. One of these volumes will be forwarded the trade on application. When writing for same, kindly add, "Saw it in THE AMERICAN ARTISAN."

NEW PATENTS.



782,221—Auger bit. Patrick J. Creeden, Wilmington, O.

782,292—Vegetable or fruit slicer. Waldemar Walter and Frank Walter, Philadelphia, Pa.

782,302—Hook. William M. Williams, Harlem, Mont.

782,327—Separable hinge for storm windows. Jacob Diehl, Sheboygan, Wis.

782,358—Water back for stoves. Daniel F. Printz, Reading, Pa.

782,368—Bit. William B. Swan, Seymour, Conn.

782,372—Coffee or spice mill. Alonzo A. Warner, New Britain, Conn.

782,395—Double shovel plow. Alfred F. Herod, North Springs, Tenn.

782,396—Saw. Jesse L. Hiers, Atlanta, Ga.

782,428—Release hinge. Robert D. Struble and John J. Cain, Philadelphia, Pa.

782,466—Tool head and fastening device therefor. Chas. F. Rabb, Bloomsburg, Pa.

782,478—Clothes line reel. Anthony Yeager, Wilkesbarre, Pa.

782,491—Door hanger. Frank B. Cook, Chicago, Ill.

782,501—Sad iron. James M. Harper, Chicago, Ill.

782,508—Furnace. Joseph T. Kelly, Chicago, Ill.

782,572—Wrench. William H. Leister, Kittanning, Pa.

782,574—Washing machine. Hjalmar Lindestrom, Chicago, Ill.

782,584—Attachment for ice cream freezers. Stella M. Shoemaker, Wilkesbarre, Pa.

782,607—Coal and gas stove. John N. Hyle and Clarence Walker, Butler, Pa.

782,631—Hot-air range or stove. Samuel Turansky, Brooklyn, N. Y.

782,666—Clothes-pin. Franklin Kirkpatrick, Riddles, Ore.

782,667—Metal lath. Paul Kuhne, Brooklyn, N. Y.

782,672—Milk strainer. John O. Linden, Prophetstown, Ill.

782,678—Coal scuttle. Alexander S. Mathers, Cora, Mont.

782,689—Vegetable cutter. Daniel J. O'Keefe, Hemingford, Neb.

782,690—Saw-tooth tool. Torbjorn Olsen, Manistee, Mich.

782,699—Heater. William Richter, New York, N. Y.

782,707—Hot-air register. Herbert Symonds, East St. Louis, Ill.

782,708—Hot-air register. Herbert Symonds, East St. Louis, Ill.

782,735—Gas heater. Carl Eickemeyer, Yonkers, N. Y.

782,748—Mail box. John E. Graham, Greenville, Mich.

782,771—Metal window screen. Simon W. Benson, Denver, Colo.

DETERIORATION IN GRATES.

The principal cause which contributes to the rapid burning out of the grate bars in a boiler is the action of the furnace heat, which will in time destroy any set of grates, but the want of a proper flow of air through the grates will cause overheating whether it occurs through too little air-space in the grates themselves, or by these spaces becoming obstructed through any cause, thus preventing the cooling effect of the air on its passage to the fire. Another reason is found in the impurities of the coal, and especially in the chemical combinations of sulphur and iron, which impurities are found in more or less quantity in all coals. The Practical Engineer says any coal which forms an easily fused clinker will injuriously affect the grates.—Ex.

Trade Report.

CHICAGO IRON MARKET.

From present indications it may safely be predicted that all records will be broken by the consumption and production of iron and steel during 1905. In most products, the demand for specifications alone is keeping pace with capacity of the mills. New business for deliveries before the end of the first half is considered by very few mills. It is estimated that the present pig iron output is going on at the annual rate of 21,500,000 tons. In spite of this unprecedented production, prices are very firm and melters are stocking up heavily. Bessemer steel is selling especially well in all sections of the country. The fact that the meeting of Southern interests recently held for the purpose of consolidation resulted in nothing definite, caused not the slightest change in the aspect with which buyers regard present prices and it is accordingly evident that prices rest on a sound, natural basis. Plates are in very strong demand, the South Chicago mill reporting that no deliveries can be shipped sooner than two months from the date on which orders are placed. Rails are selling freely and manufacturers confess that there is almost a congestion of orders. No noteworthy orders were placed during the week just ending however. Billets, steel bars, structural steel, merchant steel, and sheets are selling far ahead of all predictions. A great part of the orders for these products is from the jobbing trade, who, as if by concerted action, foretold the enormous present demand last fall and sent in extremely heavy orders. Bar iron and old materials are the only weak products on the list, though the former has strengthened somewhat since the recent advance in steel bars. The price of 1.65c, Chicago, can be shaded $1 per ton.

PIG IRON.

From the East come reports indicating that from seventy-five to a hundred thousand tons have been placed in large blocks by furnaces in the Lehigh and Schuylkill Valleys. In spite of these heavy purchases, iron in these districts is said to be weaker than in any other section of the country owing to the tremendous stocks held in reserve by the mercnant furnaces. The Steel Corporation has closed a deal for forty thousand tons of Bessemer for quick delivery at Pittsburgh. In Chicago a revival of activity in foundry trade is reported and a better sentiment as to present prices. It will be remembered that January and the greater part of February, buyers were deterred from filling their demands to a great extent by the suspicion that prices were being held unnaturally high and that they would fall with the progress of the year. Instead of declining, prices maintained their own and more. Now it is freely predicted that not many weeks will pass before a sharp advance will be made. A considerable amount of Southern iron was sold during the week on the basis of $13.50, Birmingham, mostly for deliveries during the second half, though it is the desire of all furnaces to confine their sales as much as possible to the second quarter. Sales have been made on the basis of $14, Birmingham, for No. 2 foundry, but no heavy buying has been done at this price. Northern irons are exceptionally strong at $17.50, Chicago. At this price deliveries can be obtained for any delivery during the year.

"Notwithstanding the heavy production during the month of February, stocks were considerably reduced. Foundrymen in general report good business, and the jobbing trade give the impression that they are not much concerned at the prospect of higher prices for pig iron, believing that if business holds out as they now expect it to do they can easily pay the advance.

"Coke prices are firm, with a disinclination on the part of sellers to contract ahead at present prices."

SHEETS.

There is little to report regarding the condition of this market. Demand continues of very ample proportions. Prices have strengthened to such a degree that the time at which a rise will take place is in the very near future. Large sellers believe that the demand warrants an advance of $2 per ton on box annealed. Jobbers report heavy selling. Hardware jobbers quote as follows: Black Sheet Steel—No. 16, per 100 lbs., $2.70; No. 18-29, per 100 lbs., $2.75; No. 22-24, per 100 lbs., $2.80; No. 25-26, per 100 lbs., $2.85; No. 27, per 100 lbs., $2.90; No. 28, per 100 lbs., $3.00; No. 29, per 100 lbs., $3.20. Smooth Steel—Wood's smooth, No. 15-17, $2.85; Wood's smooth, No. 18, $2.95; Wood's smooth, No. 20, $2.80; Wood's smooth, No. 22-24, $2.85; Wood's smooth, No. 25-26, $2.90; Wood's smooth, No. 27, $2.95; Wood's smooth, No. 28, $3.05. Polished Sheet Steel—No. 24, per 100 lbs., $4.85; No. 26, per 100 lbs., $4.95; No. 27, per 100 lbs., $5.05; No. 28, per 100 lbs., $5.15. Galvanized Iron (Regular Sizes)—No. 16, per 100 lbs., $3.20; Nos. 18 and 20, per 100 lbs., $3.35; Nos. 22 and 24, per 100 lbs., $3.50; No. 26, per 100 lbs., $3.70; No. 27, per 100 lbs., $3.90; No. 28, per 100 lbs., $4.10; No. 30, per 100 lbs., $5; Nos. 22 and 24x36 in., per 100 lbs., $3.70; No. 26x36 in., per 100 lbs., $3.00; No. 27x36 in., per 100 lbs., $4.10; No. 28x36 in., per 100 lbs., $4.30.

MERCHANT STEEL.

Specifications are heavy and mills are sold up for several months ahead. No new tonnage is excepted except for deliveries in the second half. We quote carload lots, mill shipments, Chicago delivery, as follows: Spring steel, 2.10c; sleight shoe, flat sizes, 1.71½c; concave and convex, 1.86½c; cutter shoe, 2.35c; smooth finished machinery steel, 1.91½c, smooth finished tire, 1.86½c; plow steel, 2.20c and upwards, according to quality; toe calk steel, 2.21½c. Cold rolled shafting, 50 per cent off in carload lots and 45 per cent in less than carload lots. Crucible tool steel, 6½c to 8c; special grades of tool steel, 13c and upwards.

OLD MATERIALS.

Prices are very weak and only the fact that no new lists are on the market prevents their sinking to a lower level. There is no demand in evidence. Buyers of scrap are waiting for prices to decline, and dealers expect it but are seemingly powerless to prevent it.

In the following quotations the higher prices are those at which dealers are selling to large consumers and the lower those at which they are buying: Old steel rails, 4 feet and over, $15.00 to $15.50; old steel rails, less than 4 feet, $16.00 to $16.50; old iron rails, $19.50 to $20.00; relaying rails, subject to inspection, $22.00 to $22.50; relaying rails, without inspection, $20.00 to $20.50; old wheels, $16.50 to $17.00; heavy melting steel, $14.50 to $15.00; mixed country steel, $9.50 to $10.50; low phosphorus scrap, .05 and under, $14.00 to $14.50. The following quotations are for net tons: No. 1 R. R. wrought, $17.00 to $17.50; No. 2 R. R. wrought, $16.00 to $16.50; shafting, $17.00 to $17.50; dealers' forge, No. 1, $12.00 to $12.50; wrought pipe and flues, $11.00 to $11.50; No. 1 cast, 150 lbs. and less, $13.50 to $14.00; No. 1 mill, $11.00 to $11.50; No. 1 Busheling, $11.00 to $11.50; No. 2 Busheling, $10.50 to $11.00; country sheet, $8.00 to $8.50; No. 1 boilers, cut, $11.00 to $11.50; boiler punchings, $13.00 to $13.50; iron car axles, $21.00 to $21.50; steel car axles, $16.50 to $17.00; iron axle turnings, $11.50 to $12.00; steel axle turnings, $11.00 to $11.50; cast borings, $8.25 to $8.75; mixed borings, etc., $8.25 to $8.75; machine shop turnings, $11.00 to $11.50; railroad malleable, $13.00 to $13.50; agricultural malleable, $12.00 to $13.00 stove plate and light cast scrap, $11.00 to $11.50; old iron splice bars, $18.00 to $18.50.

CHICAGO HARDWARE SCRAPS.

The enormous buying of last fall filled up retailers' stocks to a very large extent and, until these are depleted by an active demand by consumers, it is fruitless to expect that retailers will do much buying. Spring has shown signs of proximity, but has not yet been enough in evidence to warrant any greatly increased buying on the part of consumers. Until it does, conditions will remain about as they are now—comparatively calm with indications of a very heavy demand as soon as warmer weather has set in. R. G. Dun & Co. report that bank exchanges reached record breaking proportions during the week ending March 4, 1904. They say further that the retail trade was considerably stimulated by the warm wave of ten days ago. Staple goods sold freely for prompt delivery, and large accessions were made to the numbers of visiting buyers. Transactions in the principal jobbing lines became active and promise to continue so. The report says furthermore that agricultural communities have prospered, cash prices of all farm products maintaining profitable positions, though the speculative markets are erratic. Commercial failures last week in the United States were 245, against 252 the week before, 258 the week preceding and 236 the corresponding week of last year. The liabilities for the failures in February were, however, much less than a year ago. Failures reported in the Chicago district were twenty-one, against thirty the week before and twenty-three a year ago. From these figures and others showing a like tendency it may be assumed that conditions during the present year are slightly better than a year ago, with the prospect of improving still more.

Hibbard, Spencer, Bartlett & Co., Chicago, announce the following changes in their price list:

AUGERS.

Carpenters' nut	70-5%
Rafting	60-5%
Boring machine	70-5%

BITS.

Snell's car	50-5%
New Jennings	55%

STOCKS AND DIES.

Discount	40-5%

CANS.

(Oil and Gasolene.)

Sterling tilting, 5 gal., per doz.	$ 7.80
Eureka, pump, 5 gal., per doz.	12.00
"High C" pump, 5 gal., per doz.	9.00

Seine Nos.	6.	9.	12.	15 and larger.
Soft, per lb.	.24	.21½	.20½	.20
Medium, per lb.	...	.21½	.20½	.20
Hard, per lb.	...	.23½	.22½	.22
Staging—		21.	24.	27.
Sizes		.20½	.20	.20

WRENCHES.

Girard's agricultural	75-10%
Acme Standard	55%

WIRE AND WIRE GOODS.

Wire and wire products are selling better, perhaps, than the actual consumptive demand warrants, because of the impending advance in prices. The early warm weather brought with it an unusually large volume of business and gives a small idea of what the demand will be when spring has actually arrived. Cut nails are not selling so well as their wire brothers, prices for both brands being the same. A heavy demand for barb and smooth fence wire is reported from Western districts, but the East shows diminished requirements. Prices, however, are in all cases very strong and though conditions do not seem to warrant advances in the very near future, the heavy requirements, which will undoubtedly be filled during the next two months, will probably raise the schedule. It is said that some gauges in galvanized fence wire are very hard to obtain.

LINSEED OIL.

An advance of 2c on city oil and of 1c to 1½c per gallon on State and Western oil has been announced by manufacturers. This market is at present in a very unsettled condition with buyers declaring that prices are being upheld by artificial means and crushers maintaining that no profits are to be obtained by selling goods at current rates. The demand is practically nil at any price, but in spite of this fact another advance is looked for at an early date.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box
IC	14x14	$10 50
IC	14x20	7 15
IX	14x20	8 40
IXX	14x20	9 60
IXXX	14x20	11 85
IXXXX	14x20	13 10
IC	20x28	14 50
IX	20x28	16 50
IXX	20x28	18 95
IXXX	20x28	21 35
IXXXX	20x28	23 75

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$9 00
Cokes, 200 lbs	IC	20x28	9 35
Cokes, 216 lbs	IC	20x28	9 75
Cokes, 216 lbs	IX	20x28	11 70

PIG IRON.

Lake Sup. Charcoal	$18 50@$19 00
North'n Coke Fdy..No. 1	18 00
North'n Coke Fdy..No. 2	17 50
North'n Coke Fdy..No.	17 00
Northern Scotch, No. 1.	18 50
Ohio Strong Softeners, No. 1	19 30@ 19 80
Ohio Strong Softeners, No. 2	18 80@ 19 30
Southern Silvery, 4 to 6 per cent Silicon	18 65@ 19 65
Southern Coke, No. 1	17 65@ 17 90
Southern Coke, No. 2	17 15@ 17 40
Southern Coke, No. 3	16 65@ 16 90
Southern Coke, No. 4	16 40@ 16 65
Southern Coke, No. 1, Soft	17 65@ 17 90
Southern Coke, No. 2, Soft	17 15@ 17 40
Southern Gray Forge	16 50@ 16 75
Southern Mottled and White	15 90@ 16 15
Malleable Bessemer	1750
Standard Bessemer	18 50@ 19 00
Jackson County & Kentucky Silvery, 6 to 8 per cent Silicon	20 30@ 22 80
Jackson County & Kentucky Silvery, 10 per cent Silicon	23 30
Alabama Basic	17 15@ 17 40
Virginia Basic	17 15@ 17 40

BLACK SHEET STEEL.

No. 16	per 100 lbs. $2 70
No. 18-20	per 100 lbs. 2 75
No. 22-24	per 100 lbs. 2 80
No. 25-26	per 100 lbs. 2 85
No. 27	per 100 lbs. 2 90
No. 28	per 100 lbs. 3 00
No. 29	per 100 lbs. 3 20

POLISHED SHEET STEEL.

No. 24	per 100 lbs. $4 85
No. 26	per 100 lbs. 4 95
No. 27	per 100 lbs. 5 05
No. 28	per 100 lbs. 5 15

SMOOTH STEEL.

Wood's Smooth, No. 15-17	$2 85
" " No. 18	2 95
" " No. 20	2 80
" " No. 22-24	2 85
" " No. 25-26	2 90
" " No. 27	2 95
" " No. 28	3 05

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. ...."A" $10 20, "B" $9 20

GALVANIZED IRON.

Regular Sizes.

No. 16, per 100 lbs	$3 20
Nos. 18 & 20, per 100 lbs	3 35
Nos. 22 & 24, per 100 lbs	3 50
No. 26, per 100 lbs	3 70
No. 27, per 100 lbs	3 90
No. 28, per 100 lbs	4 10
No. 30, per 100 lbs	5 00
Nos. 22 & 24 x 36 in., per 100 lbs	3 70
No. 26 x 36 in., per 100 lbs	3 90
No. 27 x 36 in., per 100 lbs	4 10
No. 28 x 36 in., per 100 lbs	4 30

SOLDER.

XXX Guaranteed ½ & ½	per lb. 20½c
Commercial ½ & ½	per lb. 19c
No. 1 Plumbers	17½c

SHEET ZINC.

600 lb. Casks	base, per cwt. $7 70
300 lb. Casks	per cwt.
Sheets	per cwt.

COPPER.

Copper	base, 21c

TIN PIGS AND BARS.

Banca, pigs, per lb	35@35½c
Straits, pigs, per lb	35c
Straits in bars, per lb	37 c

LEAD.

American Pig	$4 60@$4 62½
Bar	6½c
National (White) brands (in less than 100 lb. lots), per lb	7½c
Sheet.	
Full coils	per 100 lbs. $7 00
Cut coils	per 100 lbs. 7 25

HARDWARE.

ADZES.

Carpenters'.	
Ajax	35&15%
Blood's	40&2½%
Hunt's	25%
White's	12½%
Coopers'.	
Barton's	20%
White's	15%
Ship.	
Ajax	33⅓%
Blood's	37½%
Hunt's	25%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.	
F. L. Waterproof, 1-10s	40c
G. D.	35c
Eley's	52c
Cartridges.	
Peters Rim Fire Ctgs	50&3%
Peters Cent Fire, Pistol and Rifle	25&3%
Peters Cent Fire, Military and Sporting Ctgs	15&8%
Peters Blank Ctgs. 22 cal	$1 24
Peters Blank Ctgs. 32 cal., C. F.	4 60
Peters BB Caps, Round ball	1 50
Peters BB Caps, Conical ball	1 95
Winchester Cent. Fire, Military and Sporting Ctgs	15&8%
U. M. C. BB Caps, Con. ball	$1 85 net
U. M. C. Rim Fire Shot Ctgs.	50&15&3%
U. M. C. Cent. Fire Shot Ctgs.	25&15&3%
Primers.	
Berdan Primers	$1 00
Peters Primers	20%
Winchester Primers	20%
Shells.	
Peters Empty Paper Shells, 10 and 12 gauge. League	25&2%
Peters Empty Paper Shells, 16 gauge. League	20&2%
Ideal Empty	25&7%
Peters Target and High Gun Smokeless	40&6%
Peters Premier and Ideal Smokeless	40, 10, & 10%
Peters Loaded Shells, League	40&2%
Peters Referee Semi-Smokeless	40&2½%
Winchester Blue Rivals / Winchester Yellow Rivals	40&1%
Winchester Repeater	20&2%
Winchester Leader	40&6%
U. M. C. Loaded Shells, Black Powder / Winchester Loaded Shells, Black Powder	40&1% full cases
Gun Wads—per 1,000.	
Peters Gun Wads	20%
U. M. C. Gun Wads	18%

Powder.		Each
King's Smokeless, kegs		$11 30
" "	½ kegs	5 80
" "	¼ kegs	2 97
" "	1-lb. cans	51
" "	1-lb. " rifle	70
Dupont's "	50-lb. drum	22 45
" "	25-lb. kegs	11 35
" "	12½-lb. kegs	5 80
" "	6½-lb. kegs	2 97
" "	1-lb. cans	51

Shot.

Drop shot, sizes smaller than B, 25-lb. bags, per bag	$1 65
Drop shot, B and larger sizes, 25-lb. bags, per bag	1 90
Buck Shot, 25-lb. bags, per bag	1 90
Chilled Shot, 25-lb. bags, "	1 90

ANCHORS.

Expansion Screw Anchors	10%

ANVILS.

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9c per lb

AUGERS.

Boring Machine	70&5%
Irwin's	40&10%
Carpenters' Nut	70&5%
Hollow.	
Ives's New Pattern	25%
Bonney's—list $30.00	75&5%
Stearn's, No. 1	per doz. $42 00
Stearn's, No. 3	" 33 50
Post Hole.	
Dalbey, 8-in.	per doz. $ 5 75
Digwell, 8-inch	" 13 00
Howe's, 6 and 8-inch.	" 11 00
Iwan's Improved	40&5%
Vaughan's, 4 to 9-in., per doz.	6 50
Rafting.	
Snell's	60&5%
Ship.	
Ford's, with or without screw	40-5%
Snell's, " " "	40-5%

AWLS.

Brad.	
Handled	per doz. $0 28
Shouldered, assorted, 1 to 4,	per gro. 95
Patent asst'd, 1 to 4	" 90
Harness.	
Common	" 1 10
Patent	" 90
Peg.	
Shouldered	" 95
Patent	" 40
Scratch.	
No. 2, handled	" 4 40
No. 1, socket handled	per doz. 1 15
No. 20 Hurwood	" 2 0
Sewing.	
Common	per gro. "
Patent	" 90

AXES.

Boy's Handled.	
Camp Fire, 3 lb	per doz. $6 00
" " 4-lb., freighters',	per doz. 7 85
Cast Steel, good grade,	" 5 80
Pioneer	" 7 00
Broad.	
Peerless	40&5%
Red Warrior	per doz. $27 00
Firemen's	" 1 50
Handled.	
Gladstone, 3 to 4 lbs.,	per doz. $11 25
Hunt's " " "	9 50
Lippincott's " " "	9 50
Pioneer " " "	10 25
U. S. A. " " "	12 50
Valley Forge" " "	9 50
Maricopa " " "	8 25
Single Bitted (without handles).	
Gladstone, per doz. 3 to 4 lbs.	$8 50
Hubbard's conc. " "	7 00
Hunt's " "	7 00
Lippincott's " "	7 00
Mann's " "	7 00
Pioneer " "	7 50
U. S. A. " "	9 00
Valley Forge " "	7 00
Second Quality " "	7 00
Maricopa " "	6 25
Double Bitted (without handles).	
Lippincott's, 3 to 4 lbs. per doz.	$9 00
Mann's " "	9 00
Pioneer " "	9 50
U. S. A. " "	11 25
Valley Forge " "	9 00

The above prices on axes of 3 to 4 lbs. are the base prices.

3½ to 4½ lbs. advance 25c.
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BALANCES, SPRING.

Frary's	50%
Pelouze	20%

BAGS, PAPER NAIL.

Pounds	3	5	10	16	20	25
Per 1,000	$1.60	1.85	2.60	3.00	3.90	4.75

BARS, CROW.

Pinch or Wedge Point	cwt. $2 95

BASKETS.

Clothes.	
Small Willow	per doz. $6 00
Medium "	" 6 75
Large "	" 7 75
Galvanized Iron. ½ bu. 1 bu. 1½ bu	
Per doz.	$4 00 5 50 7 00

BEAMS, SCALE.

P. S. & W. Co.	40%

BEATERS.

Carpet.	
Rattan	per doz. $2 40
Raymond's Steel Wire	" 80
Woven Wire, No. 4	" 1 10
Egg.	Gro.
No. 60 Improved Dover	$6 00
No. 75 Improved Dover	6 50
No. 100 Improved Dover	7 00
No. 102 Improved Dover Tin'd	8 50
No. 150 Improved Dover, Hotel	15 00
No. 152 Improved Dover, Hotel Tin'd	17 00
No. 200 Imp'd Dover Tumbler	8 50
No. 202 Imp'd Dover Tumbler Tin'd	9 50
No. 300 Improved Dover Mammoth, per doz	25 00

BELLOWS.

Blacksmiths'	70&5%
Hand.	
8 inch	per doz. $6 85
10 inch	" 8 40
Molders'.	
12 inch	" 13 00

BELLS.

Call.	
2¾ in. nickeled bell	per doz. $1 35
2¾ in. " brass bell	" 3 60
3 in. " " " "	7 50
3 in. " silver alloy bell	per doz. 16 50
4½ in. nickeled brass bell and base	per doz. 14 50
Cow.	
Ordinary Goods	70&5%
High Grade	60&10%
Jersey	70&10%
Door.	
Bigelow Automatic	per doz. $9 50
Rotary.	
3 in. bronzed iron bell	" 5 25
3 in. nickeled " "	" 7 50
3½ in. " " " "	9 00
Hand.	
Hand Bells, polished	60@60&10%
White Metal	50%
Nickel Plated	40%
Swiss	60&5%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	70, 10&5%
Farm, lbs. 40 50 75 100	
Each	$1.10 1.30 1.85 2.65

BEVELS, TEE.

Stanley's, rosewood handle, new list	40&5%
Stanley's iron handle	40&5%

BINDING, OILCLOTH.

Zipc	75&10%
Brass	75%
Brass Plated	75&10%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Ford's	40&5%
Ford's Ship	40&5%
Irwin	50&5%
New Jenning's	55%
Russell Jenning's	25&10%
Clark's Expansive	60%
Steer's " Small list, $22.00	30%
" " Large " $26.00	30%
Irwin Car	45%
Snell's Car	50&5%
" Ship	40&5%
Ford's " Auger pattern Car	40&5%
Center	40&10%
Countersink.	
Wheeler's	per doz. $1 30
American Snail head.	" 70
" Rose "	" 80
" Flat	" 70
Buck Bros.' Flat	" 2 60
German	" 70
Dowel.	
New Jennings	40&10%
Gimlet.	
Standard Double Cut	50&5@50&10%
German Pattern	per doz. $0 48
Gouge	" 80
Spoon	" 80
Countersink	" 1 30

Reamer.
Buck Bros.' ½ Round.. " 2 75
" " Square. " 2 50
Standard ½ Round .... " 75
" Square ..... " 75
German Octagon..... " 75
Screw Driver.
Round Shank..... " 48
" " extra quality ..... " 1 40
Square Shank ..... " 1 10

BLACKING, STOVE. (See Polish)

BLADES, SAW.
Butchers'.
Standard ¾ & 1¼ in.....60&5%
Clock Spring.....60&5%
Star 20%
Hack.
Disston's .....25&5%
Griffin's.....35&5%
Star 20%
Wood.
Jackson's .....per doz. $3 25
Disston's—No. 6, 16, 26 & 045.. 4 20
No. 11 ..... 6 30
W. M. & Co.'s No. 20..per doz. 5 50

BLOCKS.
Snatch.
Wooden .....55&10%
Steel .....40&10%
Tackle.
Wooden .....70&5%
Steel .....50, 10&5%

BOARDS.
Stove.....40%
Wash.
Globe .....per doz. $2 55
Banner..... " 2 90
Crystal Glass..... " 3 40
Brass King..... " 3 40
Nickel Plate ..... " 3 40
Enamel King..... " 3 40

BOBS, PLUMB.
Carpenters'.
8½ oz. iron.....per doz. $0 65
1½ lb. " ..... " 1 60
2½ lb. " ..... " 1 80
13 oz. lead ..... " 3 00
6½ oz. brass..... " 3 30
Masons'.
3 lb. lead..... " 4 00

BOLTS.
Carriage, Machine, Etc.
Carriage ⅜x6 and sizes smaller and shorter.....75&5%
Carriage, sizes larger and longer than ⅜x6 .....70&5%
Machine, ⅜x4 and sizes smaller and shorter.....75&5%
Machine, sizes larger and longer than ⅜x4.....70&5%
Elevator.....50-10&5%
Plow.....60&10%
Stove..... 80&5%
Tire ..... 70&10%
Wagon Box Strap .....70&10%
Mortise Door.
Gem.....50-10&5%
Ives'.....50&10%
Barrel.
Cast 50%
Wrought .....50&5%
" Bronzed.....75&5%
Flush.
Wrought, B K .....40&5%
Spring.
Wrought .....75&10%
" Brass .....75&10%
Square.
Cast.....40%
Wrought .....60-10&10%
Tire.....72&1%

BORERS.
Angular.
Miller's Falls.....per doz. $13 75
Bung.
Common ring with handle.
Inches..... 1½ 1¾ 2
Per doz.....$6.00 6.90 8.10
Enterprise Mfg. Co., No. 1 List $1.50; No. 2, $2 00 each...25, 10 & 5%

BOXES.
Mail, No.... ..... 5 10 20
Per doz..... $3.65 10.50 13.00
Miter.
New Langdon.....15&5%
Olmsted's 15%
Stanley's.....30%
Seavey's .....per doz. $8 00
Twine, Nos.....20 30 25 12½
Per doz.....$1 50

BRACES.
Common Ball, American .. $1.15@1.25
Barber's .....50&10&10@60&10%
Fray's Genuine Spofford's.....60%
Fray's No. 70 to 120, 81 to 123, 207 to 414.....60%
C. E. Jennings & Co.....50&5%
Mayhew's Ratchet 60%
Mayhew's Quick Action Hay Pat. 50%
Millers Falls Drill Braces..25&10%
P.,S.&W.Co.,Peck's Pat.60&10@65%

BRACKETS.
Hay-Rack.
Wenzelmann's No. 1 per doz. $12 60
" No. 2 " 13 20
Shelf.
Cast Iron, Japanned.....50, 10, 10%
Stanley's Wrought Steel 70-10&2½%
Wire .....80, 10&5%

BROILERS.
Wire..... .....70&10%
Crown, Self-Basting, No. 80. doz. $2 90

BUCKETS.
Pump Rubber.
Wychoff.....per gr. $4 75
Cooper..... " 5 50
Champion ..... " 7 50
Victor ..... " 9 50
Star..... " 5 00
IXL ..... " 6 75
Well.
Galv'd Qts..... 10 12 14
Per doz..... $2.75 $3.00 $3.25
Wooden, top ear, plain, per doz 3 75
" " swivel " 4 85
" side-strap, plain " 3 85
" " swivel " 4 95

BUCKS, SAW.
Folding .....per doz. $2 10

BURS. RIVETING.
Copper Burs only.....35-10&5%
Tinners' Iron Burs only.....70%

BUTTS.
Cast Iron.....65&10%
Wrought Brass.....20%
Wrought Steel Bright—Nos. 800, 804, 808, 810, 814 and 834.. .75&10%
Nos. 838, 840 and 842.....75-10&10%
Nos. 822 and 823.....80-20&10%
Wrought Steel, Japanned.
Nos. 731 and 727.....70&10&10%

CALIPERS.
Double .....40&10%
Inside and Outside.....40&10%
Wing .....40&5%

CALKS.
Logger's Boot.
(Lufkin R. Co.'s), per M.....$3 65
Toe.
Shoenberger.....per lb 5 c
Bessemer ..... " 5½c
American ..... " 7½c
Swedes..... " 8½c

CANS.
Cheese Factory Can Stock.
Gallons.... 15 20 30 40
Per set.... $2.85 $3.05 $3.25 $4.40
Milk.
Elgin Pattern.
Nos..... 808 810
Gals..... 8 10
Per doz..... $25.50 $24.00
New Elgin Pattern.
Eureka Pump, 5 gal.....$9 25
Wood Jacket.....50, 10&10%
Nos..... 105 108 110
Gal. each .. 5 8 10
Per doz.... $15.75 $18.00 $18.75
Iowa Pattern.
Nos..... 608 610
Gal 8 10
Per doz..... $20.50 $21.50
New York Pattern.
Nos..... 908 910
Gal. each..... 8 10
Per doz..... $25.15 $26.95
Oil and Gasoline.
1 Gal. glass, Daisy....per doz. $2 10
1 " cushioned " 3 15
Star, gals..... 1 2 3
Per doz..... $1.60 $2.00 $3.35
Per doz.
Sterling Tilting, 5 gallon.....$ 7 80
"High C" Pump, " 9 00
Eureka Pump " 12 00
Wooden Jacket.....60&10%

CAN OPENERS.
See Openers.

CAPS, GUN.
See Ammunition.

CARPET STRETCHERS.
See Stretchers.

CARRIERS.
Hay.
Myers' Imperial.....each $3 50
" Clover Leaf..... " 3 50

CARTRIDGES.
See Ammunition.

CASTERS.
Acme—Ball Bearing.....35%
Bed.....60, 10&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, 60, 10&5%
Philadelphia Plate .....70&5%
Martin's.....50&10%
Payson's.....70&10%
Tucker's, Wood & Iron Wheel.25&5%
" Rubber Wheel 15%

CATCHERS, GRASS.
Lieder's No. 1.. .....per doz. $6 25
Eureka ..... " 4 25
Ideal No. 4..... " 6 50

CHAIN AND CHAINS.
Bredst Chains.
Doubleslack .....doz. pairs $5 75
With Covert snaps. " 5 00
With slide..... " 3 25
Without slide..... " 2 85
Bright Ox Chains.
5/16 in. $5.65; ⅜ in. $5.40 per 200 lbs.
Cable Coil Chain.
Inch..... 5/16 ¼ 3/16 ⅛
Per 100 lbs.. $9.30 $6.50 $5.40 $4.60
Inch..... 7/16 ½ ⅜ ¼
Per 100 lbs.. $4.40 $4.30 $4.15 $4.05
Inch..... ⅝ 1 1¼
Per 100 lbs.. $4.00 $4.00 $4.10
Cable Log Chain.
Advance 35c per 100 lb. on Cable Coil
Cow Tie Chains.
American 2 toggle.....50&5%
" toggle and snap...50&5%
" open & closed ring, 50&5%
Halter Chains.
American, new list.....33⅓%
German.....60-10&5%
Niagara, new list.....40&5
Triumph, " 30%
Picture Chains.
Light Brass, 3 ft.....per doz. 63c
Heavy Brass, 3 ft..... " 75c
Pump Chain.
Galvanized, per 100 lbs.....$4 75
Safety Chain.
Brass.....60&10%
Special Steel Loading Chain.
Inch ..... ¼ 5/16 3/8
Per 100 lbs... $16.00 $13.50 $12.50
Stretcher Chains.
5/16 in. $8.50; ⅜ in. $7.75 per 100 lbs.
Tie-Out Chains.
Brown's .....70&10%
Trace Chains.
Western Standard.
6½— 6-2.....per pair 29c
6½— 8-2..... " 32c
6½— 8-3..... " 32c
6½—10-2..... " 37c
7 — 8-2..... " 37c
7 —10-2..... " 41c
7 —10-1 ..... " 47c
7 —10-0..... " 59c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.
Wagon Stay Chains.
Inch..... ¼ 5/16 ⅜
Per 100 lbs... $6.50 $6.00 $5.50

CHALK, CARPENTERS'.
Blue.....per gross 58c
Red..... " 48c
White..... " 38c
Common White Sch'l Crayon..... " 5½c

CHARCOAL
In barrels.....per bu. 21c

CHECKS, DOOR.
Blunt 30%
Blum-Jap'd, $6.25; Brzd., doz... $7.00
Columbia.....50, 10&5%

CHIMNEY TOPS.
Iwan's Volcano.....50%

CHISELS.
Box,
Inches..... 10 12 14
Round, per doz. $2.10 $2.25 $2.75
Flat " 2.85 3.60 4.20
Cold.
Good quality.....per lb 10@19c
U. S. A., extra quality " 28c
Socket, Framing and Firmer.
Barton's.....20%
P. S. & W. Co.....70%
For beveled back, add per doz..60c
Tanged, Firmer.
P. S. & W. Co.'s.....35&5%
With handles, add per doz.....60c
Choppers, Enterprise Meat.
No. 12.....$3 75
No. 22..... 4 50

CHUCKS, DRILL.
Standard Tool Co.'s.....40%
Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.
Anti-Bent Wood, Gal.. 5 7 10
Each.....$3.90 $4.15 $4.40
Belle, Barrel.....70&5%
Common Dash, Gal.. 4 5 6
Per doz.....$7.75 $8.50 $10.50
Hero.....70%
Union, Gal..... 5 7 10
Each..... $3.65 $3.90 $4.75

CLAMPS.
Adjustable.
Martin's.....40%
Carpenters'
Steel Bar.....30%
Carriage Makers'
P. S. & W. Co.'s.....40, 10&5%
Hose.
Sherman's, brass, ¾ in., per doz. .33c
Double, brass, ¾ in., " 65c
Saw Filers.
Disston's list, $30.00.....30%
Stearn's, No. 0, $8.50; No. 1, $11.50; No. 3, $5.50 doz.
Wentworth's.....40%

CLAWS, TACK.
Cast, wood hdle.....per doz. 45@60c
Forged steel, wood hdle " $0.80
Solid Steel..... " 1.60
Giant..... " .60

CLEANERS.
Drain.
Iwan's Adjustable.....50%
Iwan's Stationary.....40%
Pot.
Wire..... per doz. $0.45
Side-walk.
Steel..... per doz. $3.15
XLCR.....65&5%

CLEAVERS.
Family.
Ajax, In..... 6 7 8
Per doz..... $5.50 $5.75 $6.25

CLEVISES.
Malleable ..... per lb 3½c

CLIPPERS.
Bolt.....$1.90@$4.75

CLIPS.
Axle.....65&5%
Damper.
Standard.....per doz. 70c
Troy..... " 38c
Hame..... " 20c

CLOTH.
Emery.
Ajax..... 50&10%
B. & A..... 50%
Hardware Wire—full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft..$1 85
9 to 12 " " " " 2 15
2 to 8 " galv. " " 2 70
7 and 8 " " " " 3 25
An extra charge is made for 50 ft. lengths, and a still farther advance for smaller pieces.
Screen Wire.
12 mesh, painted, per 100 sq. ft..$1 25
14 " " " " 1 80

COCKS AND FAUCETS.
Compression Plain Bibbs...60-10-2½%
Lever Bibb Cocks..... .....70%
Compression Hose Bibbs.....60-10%
Telegraph Faucets (new list)...50-5%
Racking Cocks (new list).....70-5%
Compression Lock C'ks(n'w list)70-5%
No. 65 Brass Liquor Cocks, doz.. $9.15
Andrew's Brass Faucets 70%
Angle Plug Faucets, per doz... $0.85
Milk Can Faucets, per doz...$2.60-4.20
Petroleum Faucets (new list)....70%

COFFEE MILLS.
Enter. Mfg. Co., list Jan. 17, '93..25%
Parker's.. .....50%
Arcade.....60&10%

COLLARS, STOVE PIPE.
Inches..... 5 6 7
Plain Tin....per gro. $2.50 $2.80 $3.75
Japanned Tin " 3.90 4.20 5.40
Lacquered Brass " 3.30 3.60 4.80

COMBS, CURRY.
Nos 000 20 321 330 417 416
Per doz. $0.32 .80 1.00 .95 .80 1.00
Nos 531 533 530 535 545 390
Per doz. $0.96 1.20 1.10 1.65 1.40 1.30

COMPASSES.
Carpenters'.....70%
Pencil—Faber's.....per doz. $1.00

CONDUCTOR PIPE, GALVA.
L. C. L. to dealers

Territory	Nested	Not Nested
A, Eastern...	75&5%	75%
B, Eastern...	75&10%	75&5%
Central.....	75&5%	70&10&5%
Southern.....	70&7½%	70&2½%
S. Western...	70&5%	70%

Terms, 60 days; 2% cash 10 days.
Factory shipmh'ts generally deliverd
See also Eave Troughs.

COPPER—See Metals.

COPPERS.
Soldering.
1 lb .....per lb 31c
1½ lb..... 28c 2 lb..... " 27c
3 lb and larger.....* " 25c

CORD.
Picture.
White Wire—last October 1901 .....80&10%
Sash.
Baltic Braided Flax.....per lb 20c
Silver Lake, white 7-32 in. " 20c
" " " 8-32 in. " 22c

CORKSCREWS.
Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....50%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&10%

COUPLINGS, HOSE.

Brass.....per doz. $1.00
Brass Plated..... " .85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine...per doz. $22.25

CRAYONS—See Chalk.

CROW BARS.

Pinch or Wedge Point, per 100 lbs. $3.40

CUTTERS.

Meat.
Enterprise Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 100, list, $18.00.....40&10%
Nos. 2 and 4.....35%
Ideal.....per doz. $9.75
Universal... Nos. 1 2 3
Per doz.....$10.75 $13.00 $18.00
Pipe.
Sandwoods...No. 1 2 3
Each..... $0.85 $1.50 $4.00
Slaw and Crout.
3-knife Crout.....per doz. $9 75
1-knife Slaw..... " 1 65
2-knife " ..... " 2 25
Washer..... " 7 75

DAMPERS, STOVE PIPE.

Standard.....50&10%
American.....40&10%

DIES, STOCKS AND

Discount ....40& 5%

DIGGERS.

Post Hole.
Acme.....per doz. $8 75
Atlas..... " 8 25
Eagle..... " 5 75
Eureka..... " 6 25
Hercules..... " 9 75
Iwan's Split Handle.. " 8 00
Iwan's Perfection..... " 8 00
Ryan's..... " 17 00

DIGGERS, POST HOLE.

Atlas..... per doz. $8 50
Eagle..... " 6 25
Eureka..... " 6 50
Hercules..... " 10 25
Ryan's..... " 17 00
See also Augers—Post Hole.

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel painted, per doz. $6 85
1⅛ in. " " " 7 50
1⅛ in. 3-panel natural pine, fancy.....per doz. 11 50

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60%&10&5%
Blacksmith's Twist.....50%
Breast.
Common.....each, $2 25
Millers Falls..... " 2 10
Hand
Goodell's Automatic.
Nos.....01 03 3 20
Per doz..$7.75 $12.50 $14.25 $11 00
Goodell's Single Gear per doz. 16 00
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's.....per doz. $ 1 00
Bit Stock.
Standard List... 60&5%@60%@10%

DRIVERS, SCREW.

Hurwood.....40&10%
Standard.....65&10%
Ajax.....70&5%
Champion.....50%
" Pattern.....60, 10&5%
Clark's Interchangeable 33⅓%
Edison.....60%
Reed's Lightning.....50%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet.....50%
" " Spiral.....50&10&5%

EAVE TROUGH. GALVANIZED.

Territory. L. C. L.
A, Eastern.....80&7½%
B, Eastern.....80&12½%
Central.....80&7½%
Southern.....70&20&10%
S, Western.....75&12½%
Terms, 2% for cash. Factory shipments generally delivered.
See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz. $0.95 $0.95 $1.40
Plan'd " 2.10 2.35 3.00
Corrugated Conductor.
5-inch.....each 60c; per doz, $7.20
6 " ..... " 70c; " 8.40
75% discount to dealers on 2-inch, 3-inch and 4-inch plain, round and round corrugated elbows.

Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz. $1.40
Pol'd " 1.70 1.75 2.60
Plan'd " 2.30 2.70 3.30
Four-Piece Stove.
Inches..... 5 6 7
Smooth. per doz. $0.57 $0.60 $0.93
Pol'd " 1.00 1.05 1.50
Plan'd " 1.50 1.70 2.60

EMORY CLOTH—See Cloth.

EMORY, TURKISH.

Size.....5-lb. pkgs. ¼ kegs, kegs
No. 60 to 150, per lb. 6¼c 4¾c 4¼c
Flour..... " 5¼c 3¾c 3¼c

ENAMEL, IRON.

English, ½-pt. cans.....per doz. $1 50
Nubian " " ..... " 1 80
O. V. B., " " ..... " 1 25
Peerless..... 1 50

EXTRACTORS, PIG.

See Forcips, Pig.

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60&10%
Hooks and—
Brass.....60&5%
Iron.....65&10%

FASTENERS, STORM SASH

Moore's].....per doz. $0 80
Schroeder's..... " 1 50
Sensible..... " 1 10

FAUCETS—See Cocks.

FILES AND RASPS.

Black Diamond.....70&10%
Disston's.....75&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 75
Whisson's Imp..... " 5 25

FORKS.

These goods are sold net this year.
Barley.
Steel.....70&2½%
Wood, 4 tines per doz.....$5.25
Coal, Coke, Cottonseed.....40%
Hay.
Diamond, 2 tine.....50&10%
" 3 " 60%
" 4 " 40%
Golden Eagle, 3 tine.....65%
" " 4 " 70%
Digging.....70&10%
Scoop.....40%
Header.
Diamond, 3 tine.....66⅔&5%
" 4 " .....65&10%
Manure.
Diamond, 4 tine..... 60&10%
Golden Eagle.....70%
Ore.....40%
Spading.
Diamond.....70&10%
Golden Eagle.....70, 10&5%

FRAMES.

Hack Saw.
Crown.....per doz. $6 25
Miller's Falls..... " 10 00
Star..... " 2 85

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each.....$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20
White Mountain.
20 qt., New Platform...each $19 10
25 qt., " " " 22 60
25 qt., Sampson Power. " 43 50
40 qt.' " " " 58 25

GAUGES.

Butt and Rabbet.
Stanley R. & L. Co.'s...20&10&2½%
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc......
.....50&10%@50&10&5%
Saw.
Atkin's, single, 55c; dbl. 80c per doz
Wire.
Disston's.....25%
P. S. & W. Co.'s 20%

GIMLETS.

Discount .....35@40%

GLASS, WINDOW.

First three brackets.....90&15%
Above " " .....90&10%

GLASSES, LEVEL.

Stanley R. & L. Co.....50&5%

GLUE.

Bulk.
B Amber.....per lb. 9½c
A White ..... " 12½c
H. S. Amber ..... " 17c

Liquid.
Eagle 40%
Le Page's—
List "A" 37½%
List "B" 33⅓%
List "C" 25%

GOODS.

Bright Wire.....90&20%

GREASE, AXLE.

Wood Boxes.
Diamond .....per gro. $5 00
Frazer's..... 9 25
Hub Lightning 5 25
Paragon 6 75
Wood Pails.
Frazer's, 15 lb. 78c; 25 lb. $1.30 each
Hub Lightning, 15 lb. 52c; 25 lb. 68c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross $9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....40&10%

GRINDSTONES.

Family.
Inches 7 8 9
Per doz.....$8.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each $3.15 3.00 2.85
Common Bearing.. 1 2 3
Each $3.00 2.80 2.65

GUN WADS.
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 18
Peg.
Common..... " 21
Patent, plain top .... " 46
" leather top... " 52
Sewing.
Common..... " 21
Patent..... " 52

HALTERS.

Jute Rope .....per doz. $0 80
Sisal Rope..... " 1 95
Web ..... " 2 10
Leather, rope tie..... " 6 25
" leather tie.... " 8 25

HAMMERS, HANDLED.

Blacksmiths' Hand.
Maydole's .....40&10%
Engineers'.
Maydole's .....40&10%
Farriers'.
Maydole's .....35&5%
Machinists'.
Maydole's .....40&10%
Nail.
Ajax .....per doz. $5 75
Calumet ..... " 3 15
Cast.....per doz. $1 10@$1 50
Maydole's .....30&7½%
Vulcan .....35&5%
Riveting.
Maydole's .....35&5%
Shoe.
Cast.....per doz. 75c
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 52
Mall. Iron, Inlaid..... " 1 50
Magnetic 1 2 3
Per doz 70c 80c 95c
Magazine.....per doz. $4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs.....70&10%
5 lbs. and over.....75&5%
Masons'.
Single & Double Face.....70&10%

HANDLES.

Auger.
Common Assorted ...per doz. $0 36
Peck's Adjustable ... " 2 10
Roger's " ... " 4 15
Ives' " ....per set 1 25
Axe.....50&10%
Chisel.
Hickory, Tanged Firmer, Assorted, 24c; Large, 26c per doz.
Hickory, Socket Firmer, Assorted, 18c; Large, 21c per doz.
Applewood, Tanged Firmer, Assorted, 27c; large, 36c per doz.
Applewood Socket, Firmer, Assorted .....per doz. 24c
Coal Pick.....50&10%
Drifting Pick.....50&10%
File, assorted 13c, large 16c per doz.
Hammer.
Adze Eye.....per doz. 48c
Blacksmiths'.....per doz. 55c@80c
Machinists'..... " 45c@70c

Hatchet.....per doz. 45c
Hay and Manure Fork .....40&10%
Hoe and Rake.....40&5%
Saw.
Plain .....per doz. 72c
Varnished..... " 68c
Screw Driver.
Assorted ..... " 42c
Large ..... " 48c
Shovel and Spade.....40%

HANGERS.

Barn Door.
King.....per doz. prs. $6 08
Monarch .....60&10%
"Never Jump" Hinge.....50&10%
Peerless, Loose Axle .....60&10%
Perfection, Roller Bearing ..70&5%
Phoenix, Roller Bearing.....70&5%
Prouty, No. 315..per doz. prs. $6 35
Rival..... " " 3 65
Superb..... " " 5 50
Safety Flexible . " " 6 35
Wagner's Adjustable.....70&10%
Warehouse 60%
Conductor Pipe.
Iwan's Perfection 50%
Eave Trough.
Baker's.....per gro. $2 35
Imperial 20%
Wire 35%
Parlor Door.
Acme .....per set $3 75
Ives' Improved ..... " 2 50
Lane's Standard..... " 3 50
" New Model..... " 3 10
Le Roy Noiseless..... " 4 00
Richards' .....40-10&5%
Wilcox Standard .....per set $3 15

HASPS.

Hinge, Wrought .....70&5%
With Staples—See Staples.

HATCHETS.

Ajax 35%
Blood's.....40%
Cast Claw.....per doz. $1 20@1 45
Cast Shingling.... " $0 95@1 20
Duffy's Barrel.....per doz. $17 50
Germantown.....40%
Hammond's.....40%
Roger's Ideal .....per doz. $5 75
Underhill's Star Lath .....40&10%
U. S. A.....25%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1....per doz. $12 60
" No. 2.... " 13 20

HINGES.

Blind.
Clark's Gravity ...per doz. sets 80c
Parker's.....65%
Shepherd's Noiseless, for Wood casing .....per doz. 1 50
Gate.
Clark's..... 1 2 3
Hgs & Latch ....doz. $2.35 2.60 3.60
Hinges only.... " 1.70 1.90
Latches only... " .70 .75
Knuckle .....per doz. prs. $6 00
Leed's ..... " sets 6 75
Superior ..... " prs. 9 25
Spring.
American 25%
Bommer Bros. Ball B'g Floor..35%
Bommer Bros. Spring Hinges.....
Chicago.....25&5%
Clover Leaf.....per gro. $9 00
Columbia Dbl. Acting....40&10&5%
Gem 25%
Ideal Detachable....per gro. $12.00
Matchless.....30%
New Idea.....per gro. $9 60
Oxford.....
Wrought Iron.
New Lists.....
Light Strap Hinges.....70&5%
Heavy Strap Hinges.....75&10%
Light T Hinges.....65&5%
Heavy T Hinges.....70-10&5%
Extra Heavy T Hinges....70-10&5%
Cor. Heavy Strap 80-20-10-10-10&5%
Cor. Ex. Heavy T 80-20-10-10-10&5%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 5
14 to 20 in..... " " 3 22
22 to 36 in..... " " 3 00
Screw Hook and Eye.
¾ in.....per 100 lbs. $6 25
⅝ in..... " " 7 25
½ in..... " " 9 00

HOES.

Garden.....70&15%
Grub.
Ajax.....60, 10&5%
Extra 70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....70&15%
Mortar .....75&10%
Planter's Eye.....62½%
Weed.....75&5%

HOOKS.

And Eyes.
Brass ..... 50&10&5¢
Iron ..... 65&10¢
Awning ..... per gro. $1 80
Belt.
Brown's ..... 70&5¢
Jones' ..... 65&5¢
Bench.
See Stops, Bench.
Box.
Inch..... 6 8 10 12
Per doz..... $1.25 1.60 1.70 2.25
Humason & Beckley's, per doz. 2 40
(See Goods, Bright Wire.)
Bush.
Common Axe Handle
..... per doz. $7 00@$8 50
Hamilton Pattern..... per doz. 7 25
Chain.
Inch... ¼&5/16 3/8 7/16 ½
Per 100 $7.50-7.75 9.50 11.25 12 00
Clothes Line.
Japanned..... per doz. 21c@22c
Galvanized..... " 35c
Coat and Hat.
Cast Iron ..... per gro. 72c@$1 50
Gem Wire..... 75&10¢
Conductor.
Malleable..... 50&10¢@50&10&5¢
Wrought ..... 40&10¢@50¢
Corn.
Common, unpolished, per doz. $1 40
" polished.... " 1 80
"Cut Easy"..... " 2 75
Clyde's..... " 2 00
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz..... $1.75 1.80 1.90
German..... per doz. 1 90
Little Giant..... " 3 10
Wood's..... " 1 30
Hammock.
With Plate..... per doz. 31c
With Screw..... " 31c
Lambrequin, or Drapery, per gro. 21c
Picture ..... 50¢@50&10¢
Potato and Manure..... 65&15¢
Screw.
Brass..... 80&20¢
(See Goods, Bright Wire.)
Seat Spring..... per lb. 5½c

HOOPS, TUB.

Ever Ready ..... per case $1 65

HOSE, GARDEN.

3 ply ¾ in. 35 lb. pressure per ft.... 5½c
3 " ¾ " 50 " " " 7½c
3 " ½ " 70 " " " 7½c
3 " ¾ " 70 " " " 9c
4 " ½ " 80 " " " 9c
4 " ¾ " 80 " " " 10½c
6 " ¾ " 125 " " " 11½c
8 " ¾ " 150 " " " 13c
Cotton ¾ in. 75 lb. pressure per ft. 7c
" ¾ " 150 " " " 9c

HUSKER.

Boss.
Nos..... E A B
Per doz..... $1.85 2.00 1.95
Nos..... P
Per gro $5.90 5.20
Nos..... 2000 3000
Per gro..... $8.10 6.75
Nos..... 4000 O OX
Per doz..... $1.15 2.20 1.65
Brinkerhoff's.
Per gro..... $14 50
Harrington.
Per gro..... 4 20
Ideal.
Nos..... 102 101 100
Per doz..... $1.35 2.50 2.75
Johnson's.
Per gro..... $7 75

IRON.

See Metals—First column.

IRONS.

Curling.
Common..... per doz. 33c@48c
Princess ..... per doz. $0 60
Yale..... " 84
Oxford ..... " 1 10
Ruby ..... " 1 50
Tourist, Folding..... " 90
Pinking ..... " 60
Plane.
Wood Bench..... 20&5¢
Stanley R. & L. Co. (new list) 25&5¢
Sad.
Charcoal ..... per doz. $10 75
Common, Polished, per 100 lb. 3 50
" Nickel plated, " 4 75
Chinese Polishing..... per doz. 7 60
Laundry. No. 1 ..... " 5 75
" No. 2 ..... " 6 25
Mrs. Pott's,
No. 50 J, Enterprise... per set 79c
No. 55 J, " ... " 76c
No. 50 T, " ... " 82c
No. 55 T, " ... " 79c
No. 50, Howells..... " 72c
No. 55, " ..... " 69c
Tailors' Sad..... per lb. 4½c
" Geese..... " 4½c
Tuyere.
Single Duck Nest..... per doz. $5 25
Double " " ..... " 6 25
Sutton ..... each 2 60

JACKS.

Locomotive..... 75&5¢
Wagon.
Meekers'..... per doz. $1 25
Miller's No. 2..... " 7 00
Winner ..... " 7 00

KETTLES.

Brass..... 20¢
Caldron ..... 50¢
Copper..... per lb. 27½c
Maslin ..... 66⅔¢
Sugar ..... 50&5¢

KNIVES.

Best Topping.
Clyde, 9-in. Scimiter Blade, dz. $3 85
" 10½-in. Straight " " 3 15
California..... 3 40
Cooper's Hoop..... 15¢
Corn.
Ajax..... per doz. $2 10
Drawing.
Standard ..... 70¢
Adjustable..... 20¢
Barton's Carpenters'..... 10¢
" Folding Handle.... 25&5¢
Hay.
American, Sickle Edge.. doz $10 25
Canton, Sickle Edge..... " 8 25
Heath's ..... " 8 25
Iwan's Sickle Edge..... " 10 00
Lightn'g, Holt's Genuine " 6 50
Lightning Pattern..... " 5 75
Wadsworth's Sp'r Point " 8 75
Hedge.
Ajax, Heavy..... per doz. $5 75
" Extra Heavy.... " 7 75
Mincing.
Common, Single ..... " 48
" Double ..... " 65
Streeter, 4 Blade..... " 1 30
" 6 Blade..... " 1 90
Putty.
Common..... " 84
Goodell's..... per doz. $1 30@1 80
Russell's..... " 1 75@2 25

KNOBS.

Door.
Mineral ..... per doz. $0 70
Porcelain ..... " 80
Jet..... " 80

LADDERS.

Common Long.
Per ft ..... 9c@14c
Extension.
Per ft 12c
Step.
Common, per ft..... 6½c
" with Shelf, add 10c.
I X L, per ft 17c
Miller's Household, per ft. 13c@15c

LANTERNS.

Bull's Eye Police.
3-in. Flash Light..... per doz. $6 00
2¾-in. Regular..... " 4 00
3-in. Regular..... " 5 00
Tubular.
Berger..... 40&10&5¢

LEADERS, CATTLE.

Nos 1 2 3
Per doz..... $0 55 $0 70 $2 75

LEATHER, LACE.

Cut..... 50&10¢
Sizes.
Ex. Quality..... per sq. ft. 20c

LEATHERS, PUMP.

Valve and Plunger ..... 50¢

LIFTERS.

Stove Cover.
Japanned ..... per gro. $2 75
Coppered..... " 3 60
Devore's..... " 2 50
Zero..... " 3 90
Transom.
Payson's..... 70&10¢

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos..... 15 14 13 12 11
Per doz..... 10c 12c 17c 22c 29c
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz..... 24c 30c 36c 44c
Braided in 20-ft. hanks.
Nos..... 0 1 2
Per doz 23c 26c 33c
Mas[illegible] in 100-ft. hanks.. doz. $1 00
Clothes.
60-ft. Jute..... per doz. $0 95
72-ft. " ..... " 1 10
60-ft. Sisal ..... " 1 60
72-ft. " ..... " 2 10
60-ft. Cotton ..... " 1 25
50-ft. Braided Cotton. " 1 00

LINING, STOVE.

In Bricks..... per crate 42c

MACHINES.

Boring.	Without Augers	With Augers
Ajax..... per doz.	$5 25	$6 75
Angular.... "	3 25	5 00
Boss ..... "	4 50	5 00
Upright.... "	2 90	4 00

Leather Riveting.
Chicago, Pomeroy.... per doz. $0 75
Excelsior ..... " 2 50
Handy ..... " 2 10
Little Giant..... " 3 10
Pony, Pomeroy..... " 8 00
Washing.
Boss 1 2 3
Per doz..... $55.20 61.20 67.20
Globe, No. 1 ..... per doz. 53 00
O K Rotary..... " 55 50
Round Wayne..... " 26 50
U. S. Steel..... " 60 00

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small ... per doz. $5 00
" " Medium. " 5 75
" " Large... " 6 75
Round Hickory..... " 1 75
" Lignumvitæ .. " 2 75
Square Hickory..... " 1 75
" Lignumvitæ.. " 3 25
Tinners'.
Applewood ..... " 60
Hickory..... " 85
Hickory Sheet Iron.. " 1 30

MATS.

Door.
National Rigid..... 50, 10&5¢
Queen Flexible..... 50¢
Stove.
Standard Quality... per gross $2 75
Best " (Pure) " 4 75
Wire Covered Asbestos, Ex. Heavy ..... per doz. 1 00

MATTOCKS.

Ajax..... 60, 10&5¢
Extra ..... 70¢

MAULS.

Iron. lbs. 10 13 16 18 21
Per doz. $3.15 3.85 4.45 4.75 5.25
Wood face, lbs. 10 11 12
Per doz $4.75 5.00 5.25
Wood Choppers'.
Lake Super'r & Oregon Pat. 70&10¢

MEASURES.

	½ pk.	1 pk.	½ bu.
Galvanized, per dz.			$3 65
Japanned... "	$1.40	2.10	2.60

METAL.

Babbitt.
Alm ..... per lb. 8½c
Best..... " 23 c
Common, No. 4..... " 6½c
Copper Mixed ..... " 18½c
Magnolia Metal..... " 19 c
Tony ..... " 10½c
See Metals—In first column.

MICA.

First Quality..... 35¢
Second Quality..... 45¢

MILLS, COFFEE.

Enterprise ..... 25&5¢
National..... 50¢
Parker..... 50&10¢@60¢

MITRE BOXES.

See boxes.

MOPS.

Erie..... per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1¼ 2
Per dozen... $2.00 2.25 2.65 3.25

MOWERS, LAWN.

Ball-Bearing.
Inches..... 15 17 19 21
Each $7.50 8.50 9.50 10.50
Cheap Grades.
Inches..... 12 14 16 18
Each $2.10 2.10 2.10 2.20
Clipper ..... 50, 10&10¢
Girard.
Inches..... 14 16
Each..... $3.25 3.50
Philadelphia.
All Styles Except A & E 60, 10&10¢
Style A..... 50&10¢
Style E, High Wheel.. 60, 10, 10&10¢
Drevels..... 50¢
All Day..... Net Price

NAILS.

Cut Steel..... rates, $2 05
Horse Shoe.
Ausable ..... 50¢
Capewell ..... 10¢
Perfect ..... 40&5¢
Putnam ..... 10-5¢
Star ..... 35¢
Picture.
Brass Heads ..... 40&10¢
Judd's..... 40&10¢
Brads..... 80, 10&10¢
Furniture ..... 40¢
Wire.
Small Lots..... $2 05
Carload " 2 00
Cement Coated..... 1 80

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized Before Weaving.. 80&20¢
" After Weaving.. 80&15¢
Cut Pieces..... 65&5¢

NIPPERS.

End Cutting.
P. S. & W. Co..... 60&10¢
Stubb's Pattern..... 60&10¢
Hoof.
Heller's ..... 40&5¢
P. S. & W. Co..... 40&10¢
V. & B..... 40-5¢

NOZZLES.

Hose.
Gennine Boston..... per doz. $3 05
Genuine Gem..... " 2 95
Magic..... " 3 15

NUTS, HOT PRESSED.

Square Blank.

In.	¼	3/8	½	5/8	¾	7/8	1
lb.	9c	6c	4c	3½c	3½c	3½c	3c

Square Tapped.

In.	¼	3/8	½	5/8	¾
lb.	12c	7½c	5c	4½c	4c

For 5 lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern
Brass and Copper..... 35¢
Zinc ..... 60¢
Engineers'
Cannon..... 10¢
Tin..... per doz. $2.00@$3.00
Machine.
Ajax..... per doz. $0 80
Copper Plated Steel.. " 1 50
Malleable Iron..... 40, 10&5¢
Tin..... per doz. 55c@65c

OPENERS.

Box.
Inches..... 10 12 14
Flat .per doz $2.85 3.60 4.15
Round " 2.10 2.25 2.75
Can.
Delmonico..... per doz. $1 30
Never Slip..... " 0 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination ..... per doz. $11 50
Economical..... " 4 90
Family..... " 10 00

PADLOCKS.

Standard Wrought ..... 70, 10&5¢
Champion ..... 50¢
Eureka..... 40, 10&5¢
Yale ..... 60&5¢

PAILS.

Cream.
14-qt., without Ga.... per doz. $2 75
20-qt., " " .... " 3 25
20-qt., with Gauge.... " 4 20
Sap
10-qt., Galvanized..... per doz. 1 60
12-qt., " ..... " 1 85
Stock

Galvd. qts.	14	16	18	20
Per doz.....	$3.75	4.00	4.65	5.25

Water.
Galvanized, qts 10 12 14
Per doz $1.75 1.95 2.25
Wood.
Cable, 2-Hoop..... per doz. $1 90
" 3-Hoop..... " 2 10
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop..... " 1 50
" 3-Hoop..... " 1 70

PANS.

Dripping..... 60&10&5¢
Fry.
Common..... 60&10&5¢
Acme..... 66⅔&5¢
Roasting.
Brownie..... each 22c@30c
L. & H..... " 45c@60c

PAPER.

Building.
Plain ..... per 100 lbs. $1 15
Tarred..... " 1 25
Tarred Felt..... " 1 80
Diamond A, Red Rosin, pr roll 60
Leader, Red Rosin..... " 45

Sand and Emery.
Ajax ..... 50&10¢
B. & A ..... 50&5¢
Wrapping.
Grecian Express ..... per ℔. 3½c
Rag ..... " 2½c

PARERS.

Apple.
Bay State ..... per doz. $12 75
Reading ..... " 6 50
Turntable ..... " 5 70
White Mountain ..... " 4 50
Potato.
Goodsell's Saratoga 10½ in. doz. 6 50
" " 5 in.. " 5 50

PICKS.

Adze Eye Ore ..... 65&5¢
Drifting and Poll Picks ..... 60&10¢
Ajax Railroad ..... 60,10&5¢
Extra Railroad ..... 70¢
Surface ..... 65&5¢

PINCHERS.

Carpenters', wrought iron, pol. steel jaws ..... 30¢
Blacksmith's ..... 50¢
P. S. & W ..... 40 &10&5¢

PINS.

Clothes.
Common ..... per gro. $0 12
Hoyt's ..... " 30
U. S. ..... " 70
Picket.
Fluted 15 in ..... per doz. $0 70
" 21 in ..... " 1 60
Spiral ..... " 1 90

PIPE.

Conductor.

	Nested.	Not Nested.
Eastern, A	75&2½¢	75&2½¢
Eastern, B	75, 10&2½¢	75&2½¢
Central	75&7½¢	75¢
Southwestern'	70&7½¢	70&2½¢
Texas	70&7½¢	70&2½¢
Mo. River	70&7½¢	75¢
Southern	70&10¢	70&5¢

Lead.
Full coils ..... per ℔. 6½c
Cut " ..... " 6½c
Stove.

Acme—In.	5	6	7
Smooth, per jt.	10½c	10½c	12½c
Planished "	32c	33c	43c
Peerless—Smooth	8½c	9c	11½c
Polished	16c	18c	22c
Plan'hed	28c	31c	40c
Made-up—In.	5	6	7
Smooth	8½c	9c	12c

7 to 6 in. Smooth Tapers, pr jt.. 14c
6 in. Smooth T's ..... " .. 30c
7 to 6 in. Planished Tapers 45c
Wrought Iron Gas Pipe
⅛@¼-in., black ..... discount, 60¢
⅜@½-in. ..... " 60,10&5¢
¾-in. to 6-in., black ..... " 70¢
7 " 12 " .. " 62½¢
⅛@¼ " galvanized " 42¢
⅜@½ " " " 50¢
¾ " 6 " " 57½¢
7 " 12 " " 45¢

PLANES.

Siegley Iron Bench ..... 50&10¢

PLANTERS.

Corn.
Monitor ..... per doz .. $7 75
Triumph ..... " .. 6 00
Potato.
Acme ..... per doz .. $6 25
Challenge ..... " .. 10 75
Fencing.
Cronk's ..... per doz .. $9 25
Farmers' Choice ..... " .. 8 75
Russell's ..... " .. 8 65
Flat and Round Nose.
Bernard's ..... 30¢
German ..... 50¢
Lodi ..... 40¢
Paragon ..... 40&10¢
P. S. & W. Co. ..... 60¢
Gas—In. 8 10 12
Per doz $3.10 $4.00 $4.90

PLIERS.

Button's—In. 4½ 6 8 10
Per doz $2.60 $3.10 $3.90 $5.20
Button's Pattern.
In. 4½ 6 8 10
Per doz $2.35 $2.50 $3.45 $4.40
Cutting.
Bernard's ..... 30¢
Cronk's Impr'vd Button Pliers. 75¢
Cronk's Linemans No. 80 ..... 40¢
Cronk's Stubbs Pattern ..... 50&10¢
Cronk's No. 1 ..... 60&10¢
Cronk's Staple Puller Pliers .. $9.00
Lodi ..... 40&10&5¢
4 Tube, revolving ..... " 5.25

Tinner's.
Hollow ....
Solid ..... each .. 5½c

PLUMBS AND LEVELS.

Common ..... 75¢@75&10¢
Cook's ..... 40¢
Davis' Iron ..... 30¢
Davis' Inclinometer ..... 20¢
Stanley's.

Nos.	00S	0S	2S	3S
Per doz.	$4.50	$5.20	$7.60	$8.65
Nos.	30	25	50	35
Per doz.	$13.00	$17.50	$17.50	$12.35

POINTS.

Drive Well Points ..... 75&10¢

POKERS—STOVE.

Wr't Iron, str't or bent, per doz. $0.50
Wr't Iron, wood hand'le " " .75
Nickel pl'td, coil hdl's .. " " .70

POKES—ANIMAL.

Brown's, wr't steel, per doz. $5.00@6.00

POLES—FISHING.

Bamboo.

Ft.	12	18
Per. 100	$2.65	$6.25

POLISH.

Metal.
Pride of the Bar $0.60
Putz Cream.

Pts.	1-6	½	¼
Per doz.	$0.84	$1.25	$1.80

Pts.	1	2	4	8
Per doz.	$3.60	$6.00	$9.00	$18.00

White Silk, half pints, per doz. $2.00
White Silk, 6 oz. cans, per doz. 1.00
Wondershine

Pts.	1-6	½	1	2
Per doz.	$0.68	$1.30	$2.15	$3.00

Shoe.
M. D. C ..... per doz. 36c@50c
F. C. O ..... " 40c
T. M ..... " 55c@$1.25
Imperial ..... per gr. $5.00
Stove.
Black Eagle, 1 ℔ cans. pr gr .. $15.00
Black Silk—
5 ℔. pail 70c
Paste, 5 oz. cans .... per doz. $1 00
Paste, ½ ℔. cans ..... " 1 00
Black and Japanned—
Liquid, ½ pint cans .. " 1 00
Liquid, 6 oz. cans ... " 75
Steel Range Gloss .. " 1 75

Blackene, 1 ℔ cans .... pr gro. 13 00
Black Jack, ½ ℔ cans .. " 9 00
Dixon's Carb. of Iron .. " 5 75
Nickel Plate ..... " 4 50

POPPERS, CORN.

Round or Square, 1 qt. per dz, 85@95c
Square, 1½ qt ..... " $1 00
Square, 2 qt ..... " 1 25
1 qt. Reversible ..... " 1 50

POTS, FIRE.

Bernz ..... each $3 85
Clayton & Lambert's, ea .. $4 75@6 25
Gate City ..... each 6 25
Gem ..... " 6 75

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co .... 25¢
Henis ..... per doz. $2 10

PRIMERS.

See Ammunition.

PRUNERS.

Disston's Pole ..... per doz $7 50
Henry's Improved ..... " 65&10¢
Water's Improved ..... " 70,10&5¢

PULLERS.

Cork.
Daisy ..... each $3 40
Phoenix ..... " 1 60
Quick and Easy ..... " 2 90
Nail.
Giant ..... per doz. $9 00@10 50
Giant Pattern. " 00
Tack—Giant ..... " 60

PULLEYS.

Awning—Jap'd ..... 40&5¢ to 35&5¢
Clothes Line ..... 20&10¢
Hay Fork.
Iron Wheel, 5 in ..... per doz. $1 85
Wood Wheel, 6 in ..... " 1 80
Wood Wheel, 6 in.. pass knot ..... " 2 25
Hot House—Jap'd ..... 30&5¢
Screw ..... " ..... 30&5¢
Side ..... " ..... 30&5¢
Sash.
Chicago ..... per doz. $0 29
Clark's ..... " 42
Common Sense, 2 in .. " 26
" Pattern, 2 in . " 20
Empire ..... " 24
Ideal ..... " 22

PUMPS.

Pitcher Spout.

Nos.	1	2	3	4
Each	$.90	1.00	1.10	1.40

PLATES, TIN.

See Metals in Column 1.
Spray.
Blizzard ..... per doz. $14 25
Cyclone, tin ..... " 3 90
" copper ..... " 6 75
Daisy ..... " 8 75
Little Giant ..... each 2 40

PUNCHES.

Conductors'.
No. 22 ..... per doz. $2 00
Machine ..... per ℔. 0 00
Saddlers'.
Common ..... per doz. 60c@70c
Good ..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure ..... per 100 ℔s. 2 35
Commercial ..... " 2 18

RAIL.

Barn Door.
Light Wrought ..... per ft. 3c
Safety ..... " 4½c
Single Flange ..... " 1½c
Smith's Wro't Bracket, plain 3½c
Smith's Special 4½c
Smith's "Never Jump" ..... 11c 50¢
Smith's Plain Steel ..... 30¢
Smith's Milled Steel 4½c
Sliding Door.
Painted iron ..... per ft. 4½c
Bronzed wrought iron ... " 8½c

RAKES.

Coal or Wood ..... per doz. $5.60
Garden.
Cronk's Champion ..... 70¢
Cronk's Victor ..... 75¢
Steel, braced ..... 80&10¢
Steel, bow 75c
Malleable Iron, heavy ..... 70&7½
Hay.
Wood ..... $1.40@$2 00
Lawn—Wood.
Common ..... per doz. 2 35
Automatic ..... " 5 75
Gibbs' ..... " 3 95
Jumbo, 36 teeth ..... " 6 30

RASPS—See Files.

REGISTERS.

List December 5, 1904.

Black and White Japanned .. 70&10¢
Nickel Plated ..... 75¢
Electroplated, Brass, Bronze or Copper ..... 75¢

RINGS

Bull.

Copper	2-in.	2½ in	3 in.
Per doz		$1.35	$1.70
Rea's Impro'd Self Piercing copper, pr d'z.	$1.25	1.50	1.75
Steel per doz		.95	1.05
Nickel Plated		1.35	...

and Ringers—Hog.
Blair's Rings ..... per doz. $0 60
Blair's Ringers ..... " 84
Brown's Rings ..... " 65
Brown's Ringers ..... " 90
Champion Ringers ... " 1 70
Hill's Ringers ..... " 65
Hill's Ring, boxes ..... " 45
Mazor Rings ..... " 80
Perfect Ringers ..... " 95
Wolverine Rings ..... " 1 50
Wolverine Ringers ... " 70
Fruit Jar.
White ..... per ℔ 30c
Key.
Split, round ..... per doz. 12c
Split, square ..... " 32c
Ball, Round ..... " 32c

RIVETS.

and Burrs.
Copper Belt ..... 50&5¢
Coppered Iron ..... 75¢
Tinners' ..... 66⅔@10¢
Hame ..... per ℔. $0 00
Slotted Clinch ..... per doz. 40c@45c
Tubular.
Nos. 1 and 2 assorted sizes, doz. 45c

RIVET SETS.

See Sets.

ROPE.

Cotton.
¼, 5-16-in. Com. on reels .. per ℔. 12½c
¼, 5-16-in. Com. in coils .. " 13c
¼, 5-16 Imperial in coils . " 22c
Sewall & Day Sisal Rope.
Rates 10½c
Sisal.
Eagle, rates ..... per ℔. 8½c
Pure Manila.
Rates ..... " 12½c

RULES.

Boxwood ..... 60¢
Ivory ..... 35&5¢

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's ..... 25&7½¢
Jackson's ..... 25&7½¢
Butchers'.
Disston's ..... 35&7½¢
Circular.
Disston's ..... 50¢
Hiles' ..... 50&10¢
Compass.
Common ..... per doz. $1.35@$1.60
Disston's ..... 25&7½¢
Cross-Cut.
Atkins' ..... 40¢
Disston's ..... 40&10¢ &50¢
Pocahontas Bit ..... per ft. 30c
Pocahontas, Blued ..... " 41c
Dehorning.
Atkins' ..... per doz. $5 50
Disston's ..... " 5 75
Hack.
Disston's ..... 25½¢
Keystone ..... 33⅓¢
Sterling Hack Saw Blades ..... 25¢
Sterling Hack Saw Frames ..... 30¢
Hand and Rip.
Brown's ..... 30&7½¢
Disston's No. 7 ..... 30&7½¢
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 ..... 25&7½¢
Gorham's Comb ..... 30&7½¢
Keystone ..... 30&7½¢
Sam Sickles', hand .... per doz. $4 25
"I Will," hand ..... " 5 75
"I Will," rip ..... " 6 75
"U. S. A." hand ..... " 12 25
"U. S. A." rip ..... " 14 25
Keyhole—Disston's ..... 25&7½¢
Kitchen.
Sterling ..... 25¢
One Man ..... 50¢
Panel.
Brown's ..... 30&7½¢
Disston's No. 7 ..... 30&7½¢
Disston's No. D100 ..... 25&2½¢
"I Will" ..... 40¢
"U. S. A." ..... 40&10&5¢
Pruning.
Avery's Duplex ..... 25&7½¢
Brown's ..... 25&7½¢
Disston's ..... 25&7½¢
Wood.
Common ..... per doz. $4 50
Handy ..... " 7 50
Happy Medium ..... " 7 00
Wood Sawyers' Delight " 8 25

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain ..... per doz. $1 20
" painted .... " 1 60

SCALES.

Counter.
Pelouze ..... 40&10¢
Platform.
Osgood ..... 50¢

SCOOPS.

Grain.
⅛ Bu. "Hercules," .. per doz. $13 75
1 " " " 15 50

SCRAPERS.

Box.
Stanley's Adjustable, per doz. $3 60
Triangular ..... " 2 50
Cabinet.
Ajax ..... per doz. $2 25
Cast Steel ..... " 65c@75c
Stanley's No. 80 ..... " $8 40
Road.

Cubic ft.	7	5	3
Without runners, ea.	$4.15	3.90	3.65
With runners .... "	4.00	4.15	3.90

SCREWS.

Bench.
Iron ..... 50&5¢
Wood, white maple .. per doz. $3 60
Hand—Wood ..... 20¢
Hand Rail ..... 70&10¢
Jack ..... 75&5¢
Lag or Coach—all sizes, gimlet pointed ..... 80¢
Saw—Centennial.

Nos.	1	2	3	4	5	6
Per doz.	19c	22c	27c	32c	25c	27c

Wood.
F. H. Bright Steel ..... 87½, 10&10¢
R. H. Blued Steel ..... 85&5¢
F. H. Jap'd Steel ..... 82½&5¢
F. H. Brass ..... 85&5¢
R. H. Brass ..... 80&5¢
R. H. Nickel Plated ..... 75¢

SCYTHES.

Clipper, grain ..... per doz. $7 75
Dutchman, O.V.B ..... " 6 25
Clipper, grass ..... " 6 00
U. S. A., grass ..... " 6 75

SETS.

Nail.
Round, common.....per doz. $0 33
Square, " ..... " 42
Octagon " ..... " 33
Square, Buck Bros... " 1 25
Cup Point, knurled, pr. doz. 70c@90c
Rivet.
Farmers'.....per doz. $1 45
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz. $3 50
Common Lever..... " 1 20
Disston's Monarch... " 6 50
" X Cut..... " 11 75
German ..... " 1 35
Morrill's Old Style... " 5 00
" Pattern.... " 4 50
Leach's..... " 4 80
Nashe's Hand..... " 4 00
" X Cut..... " 5 50
Stillman's Lever..... " 1 30
" X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz. $1 60

SHAVES, SPOKE.

Iron.....per doz. $1.35@$2.75
Wood..... " 2.75@ 4.75
Bailey's.....50&5%
Goodell's.....15%
Stanley's Universal.....30&5%

SHEARS.

Pruning.
Buckeye, No. 1.....per doz. $6 75
" No. 2..... " 8 40
California Pat., 9 in.. " 4 25
" " 10 in.. " 5 00
Draw Cut, No. 3..... " 14 75
" " No. 4..... " 17 50
Henry's Pat. 0 01 14 012
Per doz.....$1.90 $2.50 $3.15 $3.50
Star.....per doz. $4.75
Sheep—No. BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 $11.50 $12.00
Nar. Grip, doz. 11.75 12.00 13.00
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.42 $0.48 $0.70
Hatfield's.
Per set..... .75 1.00 1.60

SHELLS—See Ammunition.

SHELLERS, CORN.

Union..... per doz. $7.25

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.
5-inch.....each 75c; per doz. $ 8.64
6 " ..... " 80c; " 10.18
75% discount to dealers on 2-inch, 3-inch and 4-inch plain, round and round corrugated shoes.

SHOE POLISH—See Polish.

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal.
No. 2 Ajax.....per doz. $5 25
No. 4 Golds..... " 6 2[illegible]
Ames' new list.....Discount 12½%
Drain.
Iwan's Perfection.....50%
Railroad, Etc.
Gold Hibbard's.....per doz. $9 25
C. H. Conover's..... " 7 75
Beckwith's..... " 7 75
Hickory..... " 6 25
Greenleaf's..... " 5 25
Columbus..... " 5 00
Ames' new list.....Discount 12½%
Snow.
Per doz.....$1.65@$9.00

SIFTERS.

Hunter's Genuine.....per doz. $1.10
" Imitation..... " .90
Tin Rim, 16 mesh plain wire " 1.35
Wood " 16 " " " " .80

SINKS.

Cast Iron.
Painted.....10&5%
Enameled, White.....60-10&10%
Wrought Steel.
Painted, new list.....40 10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....65%
German Pattern.....30&5%
Judd's Pattern.....60&10%@70%

SNATHS.

Double Ring, Bush.....per doz. $6 75
Patent Loop " .... " 7 30
" " Grass..... " 6 00

SNIPS, TINNERS'.

Hernisch's.....40&5%
National.....40&5%
P. S. & W. Co's.....25&5%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.... 28c 33c 35c 40c
Reliance.
Per doz.....light $1.40; heavy $2.20
Star.
Per doz..... light 90c; heavy $1.30
Torrey's.....per doz. $1.30
Warner's No..... 11 12
Per doz..... 70c $1.30

SQUARES.

Steel and Iron.....75%
(Add for Bluing, $2.50 per doz., net)
Mitre.
Stanley's No. 12.....40%
Try.
Stanley's No. 20, new list...30&10%
" No. 12 and 14.....40%
Try and Bevel.
Stanley's.....40&5%
Try and Miter.
Fox's.....per doz. $7.25
Winterbottom's.....50%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood. " 1 20
Boss, tinned iron..... " 82
Pearl, nickel plated..... " 1 30
Star, " " ..... " 1 60
Little Giant, tin'd iron. " 4 25
King..... " 2 50
Drum..... " 4 75

STAPLES.

Blind.
Barbed.....per ℔ 9½@10c
Butter Tub..... " 8@8½
Fence—less than carload.
Polished.....per 100 ℔ $2 20
Galvanized..... " 2 50
Netting.
Galvanized.....per 100 ℔ 3 90
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....85-10&5%
Extra heavy.....75&10%

STEELYARD.

Discount 25%

STONES.

Axe.
Hindostan.....per ℔ 5½@7c
More Grit..... " 9½c
Washita..... " 16½c
Emery.....60%@60&5%
Oil—Mounted.
Arkansas Hard.....per ℔ $2 00
Arkansas Soft..... " 1 15
Hindostan..... " 6½@6½
Oil—Unmounted.
Lily White.....per ℔ 43c
Queer Creek..... " 14½c
Ouachita..... " 36c
Washita..... " 25c
Sythe.
Black Diamond.....per gro. $7 75
Clear Grit..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 20
La Moille ..... " 7 00
White Mountain..... " 6 50
Willoughby Lake..... " 6 25
Red End..... " 3 15

STOPS, BENCH.

Hotchkiss'.....per doz. $3 60

STOPPERS, FLUE.

Common.....per doz. $0 42
Crown ..... " 48
Gem, flat, painted..... " 72
Gem. cor'd, decorated.. " 68
Kirch's..... " 1 20
Peerless..... " 72
Skinner's Common Sense " 95

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards.

STRAPS.

Scoop.....per doz. prs. $1 80
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 6 00
Malleable Iron..... " 70
Perfection..... " 6 00
King..... " 4 50
Wire.
N. S. Elwood's..... " 6 25
O. S. Elwood's..... " 6 25
Little Giant..... " 5 75
Star Lever..... " 6 25
Star Tackle Block.... " 9 00
Warner's..... " 6 25

SWIVELS.

Malleable Iron.....per ℔ 5½c
Wrought Steel.....per gro. $4 50

TACKS.

American Cut.....90&5%
American Wire.....85&25&10%
Bill Posters Cut.....90&35%
Blued Carpet.....90 & 5%
Tinned Carpet.....90&10%
Gimp.....90&35%
Upholsters' Cut.....90&40&5%
Upholsters' Wire.....90&35%
Double Pointed.....90&20%
Copper.....per ℔ 32c
Canvas Nails.....75&5%
Clout Nails.....75&5%
Hungarian Nails.....80&5%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....25%
Patent Leather.....25%
Lufkin's Steel.....30%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 95c@$1 25
Wood Back..... " $1.75@ 9 00
Glass..... " 15 50

TIES.

Bale.
Single Loop.....80&7½%
All other kinds.....65&10%
Cow—See "Chains."

TOOLS, SAW.

Atkins' Dexter.....per doz. $4 25
Atkins' Excelsior..... " 6 25
Disston's Universal.....40%

TRAPS.

Fly.
Balloon.....per doz. $1 00
Harper's..... " 1 25
Game.
Newhouse.....50%
New Victor.....75&10%
Mole.
Reddick's.....per doz. $5 75
Mouse and Rat.
Wood Choker.....per hole $0 11
Tin Choker..... " 09
Delusion.....per doz. 85
Imitation Sight, Rat. " 80
Marty Rat..... " 6 75
Marty Rat Imitation.. " 3 75
Marty Mouse..... " 3 15
Marty Mouse Imitation " 2 10
French Automatic.....each 3 60

TROWELS.

Brick.
Standard.....30%
Brade's.....10&7½%
Disston's.....30%
Rose's.....25%
Plasterers.
Standard.....33⅓%
Disston's.....30%
W. & McP.....25%

TRUCKS.

Bags.....each $1 70
Handy..... " 1 50
Warehouse.....60&5%
No..... 1 2 3
Half Ironed.... $2.60 $3.40 $5.00
Full Ironed.... 3.90 5.75 6.75

TUBS, WASH.

Standard.
Nos..... 3 2 1 Ex. large
Per doz.... $5.25 $6.25 $7.25 $ 9.75
Dowell.
Per doz.... 5.60 6.60 7.50 10.00
Cedar.
Per doz.... 6.50 7.50 8.25 .....
Indurated.
Per doz.... 7.20 7.95 9.45 11.70
Galvanized.
No..... 1 2 3
Per doz.....$5.25 $5.75 $6.50

TWINE.

Per ℔
3-ply Cotton Wrapping.....21c
4 " " " 21c
4 " " Extra Wrappings.....27c
4 " " " Hvy. Wrappings.26c
4 " " Wrapping on tubes...23c
3 " " " " cones...23c
4 " " " " " ...23c
India Hemp, ¼-lb. balls.....18c
" " ½-lb. " 17c
" " ¾-lb. " .....doz. 65c
2-ply " ¼-lb. " 11½c
3-ply " ¼-lb. " 11½c
Jute Wrappings, ¼-lb. balls.....11½c
Jute Wool, 1-℔. balls.....6c
Seine.
Nos..... 6 9 12 15+
Soft, per ℔ .24 21½ 20½ 20
Med. " 21½ 20½ 20
Hard " 23½ 22½ 22
Staging, ¼-lb. ball, size 21.....20½c
" " " " 24.....20c
" " " " 27.....20c
Bagging " " 22c
3-ply "B" in hanks.....19c
4 " "B" " 19c
3 " "A" " 29c
3 " Silver Finish, in hanks....30c
Fodder or Lath
130-strand 8c
200-strand, ...8½c

VISES.

Bonney's.....30%
Cheney's 20%
Parker's Oval Slide .....
.....50, 10, 2½% @ 50 10, 5, 2½%
Parker's Parallel.....15&20%
Parker's Victor.....10%
Parker's Combination.....50&10%
Solid Box.....60&5%
Adam's Mechanics'.....each 2 65
Williamson Universal.....20%

WARE.

Cast-Iron Hollow.
Ground.....50&10%
Unground .....60&5%
Extra Finished.....40&10
White Enameled.....40, 10&5%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O. G. cast iron...per ℔. 2½c
Wrought iron in bulk per ℔.:
In. ½ ⅝ ¾ ⅞ 1 1⅛ 1¼
7½c 5½c 4c 3½c 3½c 3½c 3½c
Wrought steel in 5 ℔. boxes, per ℔.
In. ½ ⅝ ¾ ⅞ 1 1⅛ 1¼
8½c 6½c 5c 4½c 4½c 4½c 4½c

WASHING MACHINES—See Machines.

WEDGES.

Ax.....per doz....30c
Galling .....per ℔ 10½c
Saw ..... " 8½c

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 2 50 to 3 25
Standard, per doz..... 2 75
Hoosier, per doz..... 3 10 and 4 15

WEIGHTS.

Hitching ....per ℔ 2½c
Sash—F.O.B. Chicago...pr ton $22 00

WHEEL BARROWS.

Common Railroad....per doz..$15 50
Heavy " .... " .. 19 50
Railroad, ball bearing " .. 19 00
Favorite Steel Tray.. " .. 25 00
No. 04 Steel Dirt.... " .. 47 00
No. 04½ " " .... " .. 50 00

WHEELS.

Corundum .....70&10&5%
Emery .....75&5%
Well In. 8 10 12 14
Per doz.....$1.90 $2.20 $3.00 $5.50

WIRE.

Barbed Painted. Galv'd.
Carloads..per 100 lbs..$2.15 $2.45
Less than car " .. 2.20 2.50
Brass.
In coils.....20%
In 1 ℔ spools, new list.....50&10%
Broom—Tinned.....60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%33⅓%
In 1 ℔ spools, new list ....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $1.95
Nos. 6 to 9, Galvl'd... " 2.25
Hair—New list.....50&10%
Market.
Bright, full bdles.....70&10%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....70&5%
Tinned, broken bdles.....65&10%
Picture—In coils.....80%@80&10%
In 5 ℔. spools. .....per ℔..26c
Plain—Small lots.....$2.00
Car lots 1.95
Small spools 5c per hundred higher.

WRENCHES.

Acme Standard.....55%
Alligator .....70&10%
Always Ready.....50%
Bemis & Call No. 2 Improved Pipe Wrenches.....60%
Coe's Standard.....40&10%
Girard's Agricultural.....75& 1%
P. S. & W. Co.'s Agricultural 75&10%
" " " Knife H'dle..50&5%
Wescott's "S".....33⅓%
Malleable "S".....per ℔. 05½c
Malleable..... " 05½c
Stillson Pipe.....60&10%
Trimo " .....60&5%

WRINGERS.

Clothes.
No. 22, Guarantee....per doz.$28 00
No. 110, Guarantee.... " 29 00
No. 110, Brighton..... " 21 00
No. 22, Pioneer..... " 20 00
No. 2, Superb..... " 19 50
No. 730, Easy..... " 26 00
No. 500, Royal ..... " 30 00
No. 350, Universal.... " 25 50
No. 300, Novelty..... " 25 50
No. 310, Keystone ... " 25 50
No. 100, Rival ..... " 21 00

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La Crosse Steel Roof. Co., La Crosse, Wis

Cutlery

Block & Co., New York
Ohio Tool Co., Columbus, O

Dairy Supplies

Blanke & Hauk Supply Co., St. Louis, Mo

Dampers

Arcade Mfg. Co., Freeport, Ill
Dust, Wm. T. & Co., Detroit, Mich
Kramer Bros. Fdy. Co., Dayton, O
Sayre Stamping Co., Sayre, O

Dies

Canton Fdy. & Mch. Co., Canton, O
Globe Mch. & Stamp Co., Cleveland, O

Door Hangers

Stowell Mfg. & Fdy. Co., South Milwaukee, Wis
Richards Mfg. Co., Aurora, Ill

Drills

North Bros. Mfg Co., Philadelphia. Pa

Drop Presses

Canton Fdy. & Mch. Co., Canton, O

Eaves Trough

Badger Steel Roofing Co., La Crosse, Wis
Eller, J. H. & Co., Canton, O
Garry Iron & Steel Co., Cleveland, O
La Crosse Steel Roof. Co.. La Crosse, Wis

Eaves Trough Machinery

Canton Fdy. & Mch. Co., Canton, O

Egg Beaters

Taplin Mfg. Co., New Britain. Ct

Elbows—Conductor Pipe

Dieckmann, F., Cincinnati, O

Electrotypes

St. Louis Electrotype Fdy., St. Louis, Mo

Elevators

Kimball Bros. Co., Council Bluffs, Ia

Enamel Ware

Avery Stamping Co., Cleveland, O
Block & Co., New York
La Lance & Grosjean Mfg. Co., Chicago, Ill
Nat'l Enamel. & Stamp. Co., Milwaukee

Enameling

Hooper, C. N., Dubuque, a
Michigan Enameling Wks., Kalamazoo. Mich

Fence Gates

Denning Wire & Fence Co.. Cedar Rapids, Ia

Files

Barnett, G. & H. Co., Philadelphia, Pa
Disston Henry & Sons, Philadelphia, Pa

Flue Stoppers

Nichols & Rankin Co., Burlington, Ia
Stuber & Kuck, Peoria, Ill

Forming Rolls

Bertsch & Co., Cambridge City, Ind
Canton Fdy. & Mch. Co., Canton, O
Globe Mch. & Stamp. Co., Cleveland, O
Niagara Mch. & Tool Wks., Buffalo, N.Y
Walker Tool Co., Lansing, Mich

Foundry Supplies

Kelly, T. P. & Co., New York, N.Y
Obermayer, S. Co., Cincinnati, O
Smith, J. D. Fdy. Supply Co., Cleveland, O

Furnaces—Hot Air

American Furn. Co., St. Louis, Mo
Beckwith, Estate, P. D. Dowagiac, Mich
Bergstrom Stove Co., Neenah, Wis
Bonnot Co., Canton, O
Boynton Furnace Co., Chicago, Ill
Canton Fdy. & Mch. Co., Canton, O
Craig-Reynolds Fdy. Co., Dayton, O
Excelsior Steel Furnace Co., Chicago, Ill
Grossius Furn. Co., Cincinnati, O
Hart & Crouse Co., Utica, N.Y
Haynes-Langenberg Mfg. Co. St. Louis
Henry & Scheible Co., Cleveland, O
Kelsey Heating Co., Syracuse, N.Y
Kontny, John, Chicago, Ill
Kruse & Dewenter, Indianapolis, Ind
Lennox Furnace Co., Marshalltown, Ia
March-Brownback Stove Co., Pottstown, Pa
Meyer Furn. Co., Peoria, Ill
Miller Range & Furn Co., Cincinnati, O
Monroe Fdy. & Furn. Co., Monroe, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis
Patric Furn. Co., Springfield, O
Pittsburgh Stove & Range Co., Pittsburgh, Pa
Rohrbacher & Allen, Akron, O
Schwab & Sons Co., Milwaukee, Wis
Smith, Chas, Co., Chicago, Ill
Wise Furnace Co., Akron, O

Furnace Pipe and Fittings

Excelsior Steel Furn. Co., Chicago, Ill
Meyer, F. & Bro. Co., Peoria, Ill
Michigan Safety Furn. Pipe Co., Detroit
Mueller, L. J. Furn. Co., Milwaukee, Wis
Nat'l Enam. & Stamp. Co., Milwaukee

Furnace Repairs

Des Moines Stove Repair Co., Des Moines, Ia
Dust, Wm. T. Co., Detroit, Mich
Great Western Stove Repair Co., Minneapolis, Minn
Morris Stove Repair Co., Chicago. Ill

Furnace Rings

Walworth Run Fdy. Co., Cleveland, O

General Merchandise

Silver & Co., Brooklyn. N.Y

Grass Carriers

Specialty Mfg. Co., St. Anthony Park, Minn

Hammers

Franklin Specialty Co., Reading, Pa
Nelson, A. T., Wilton Junction, Ia

Hardware Jobbers

Block & Co., New York
Clark. Quien & Morse, Peoria, Ill
Lee-Glass-Andreesen Hdw. Co., Omaha

Hardware Specialties
Hoerle, W. M., Allegheny, Pa
Johnston, W. H. Mfg. Co., Peoria, Ill

Hatchets
Franklin Specialty Co., Reading, Pa

Hay Carriers
Richards Mfg. Co., Aurora, Ill
Stowell Mfg. & Fdy. Co., Milwaukee

Heaters—Steam and Hot Water
Boynton Furnace Co., Chicago, Ill
Hart & Crouse Co., Utica, N.Y
Monroe Fdy. & Furn. Co., Monroe, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis

Hinges—Spring
Bommer Bros., Brooklyn, N.Y
Lawson Mfg. Co., Chicago, Ill

Hoes
Sandusky Tool Co., Sandusky, O

Hollow Ware
Avery Stamping Co., Cleveland, O
Sperry, D. R. & Co., Batavia, Ill

Hot Water Attachments
Smith Co., Chas., Chicago, Ill

Ice Cream Freezers
North Bros. Mfg. Co., Philadelphia, Pa

Ice Picks
Arcade Mfg. Co., Freeport, Ill
Franklin Specialty Co., Reading, Pa
Hurwood Mfg. Co., Bridgeport, Ct

Kitchen Utensils
Arcade Mfg. Co., [illegible] o rt, Ill
Enterprise Mfg. Co., Philadelphia, Pa
Silver & Co., Brooklyn, N.Y
Taplin Mfg. Co., New Britain, Ct

Land Boats
Johnston, W. H. Mfg. Co., Peoria, Ill

Lanterns
Berger Mfg. Co., Canton, O
Hurwood Mfg. Co., Bridgeport, Ct

Lawn Mowers
Clipper Lawn Mower Co., Dixon, Ill

Levels
Chapin-Stephens Co., Pine Meadow, Ct
Ohio Tool Co., New York, N.Y
Stanley Rule & Level Co., New Britain, Ct

Lighting Systems
Superior Mfg. Co., Ann Arbor, Mich

Lightning Rods
Dodd & Struthers, Des Moines, Ia

Mail Boxes
Blick-Williams Co., Indianapolis, Ind
Folsom, C. G., South Bend, Ind
Hessler, H. E. Co., Syracuse, N.Y
Signal Mail Box Co., Joliet, Ill
Smith Bros. Mfg. Co., Indianapolis, Ind

Meat Choppers
Enterprise Mfg. Co. of Pa., Philadelphia

Metal Polish
Hoffman, Geo. W., Indianapolis, Ind

Metal Shingles
Burton, W. J. Co., Detroit, Mich
Cortright Metal Roofing Co., Philadelphia
Nat'l Sheet Metal Roof. Co., Jersey City

Mica
Brauer, A. G., St. Louis, Mo
Dust, Wm. T. Co., Detroit, Mich
Morris Stove Repair Co., Chicago, Ill

Nuts
American Lock Nut Co., Oregon, Ill
Atlas Bolt & Screw Co., Cleveland, O
Columbus Bolt Works, Columbus, O

Oil Cans
Cooney & Geiger, Indianapolis, Ind

Paints
Connors, Wm. Paint Mfg. Co., Troy, N.Y
Dixon, Jos. Crucible Co., Jersey City, N.J

Pattern Letters
St. Louis Electrotype Fdy., St. Louis

Pencils
Dixon, Jos. Crucible Co., Jersey City, N.J

Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Planes
Chapin-Stephens Co., Pine Meadow, Ct
Ohio Tool Co., Columbus, O
Sandusky Tool Co., Sandusky, O
Stanley Rule & Level Co., New Britain, Ct

Pliers
Hurwood Mfg. Co., Bridgeport, Ct
Utica Drop Forge & Tool Co., Utica, N.Y

Printing
Blakely, Vern, North Girard, Pa

Pumps
Beckman Bros., Des Moines, Ia
Berger Mfg. Co., Canton, O

Punches
American Lock Nut Co., Oregon, Ill
Bertsch & Co., Cambridge City, Ind
Globe Mch. & Stamp. Co., Cleveland, O
Niagara Mch. & Tool Wks., Buffalo, N.Y
Walker Tool Co., Lansing, Mich
Weiss, H. & Co., New York, N.Y

Radiators
Hart & Crouse Co., Utica, N.Y

Rasps
Barnett, G. & H. Co., Philadelphia, Pa
Disston, Henry & Sons, Philadelphia, Pa

Registers
Foster, C. H., St. Louis, Mo
Henry & Scheible Co., Cleveland, O
Mueller, L. J., Furn. Co., Milwaukee, Wis
Schwab & Sons Co., Milwaukee, Wis
Stowell Mfg. & Fdy. Co., Milwaukee, Wis
Walworth Run Fdy. Co., Cleveland, O
Waterloo Register Co., Waterloo, Ia

Roofing—Asphalt
Armitage Mfg. Co., Richmond, Va
Asphalt Ready Roofing Co., New York
Stowell Mfg. Co., Jersey City, N.J

Roofing—Felt
Armitage Mfg. Co., Richmond, Va

Roofing—Iron and Steel
Badger Steel Roofing Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Steel Roofing Co., Canton, O
Cortright Metal Roof. Co., Philadelphia
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt, Chicago, Ill
Garry Iron & Steel Co., Cleveland, O
La Crosse Steel Roof. Co., La Crosse, Wis
Nat'l Sheet Metal Roof. Co., Jersey City
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Roofing Cement
Connors, Wm. Paint Mfg. Co., Troy, N.Y
Garry Iron & Steel Co., Cleveland, O

Roof Paint
Armitage Mfg. Co., Richmond, Va
Conners, Wm. Paint Mfg. Co. Troy, N.Y
Dixon, Jos. Crucible Co., Jersey City, N.J
Garry Iron & Steel Co., Cleveland, O
Stowell Mfg. Co., Jersey City, N.J

Rules
Chapin-Stephens Co., Pine Meadow, Ct
Lufkin Rule Co., Saginaw, Mich
Stanley Rule & Level Co., New Britain, Ct

Sad Irons
Enterprise Mfg. Co. of Pa., Philadelphia, Pa

Salesmen's School
Sheldon School of Salesmanship, Chicago

Sash Balances
Pullman Mfg. Co., Rochester, N.Y

Saw and Saw Sets
Atkins, E. C. & Co., Indianapolis, Ind
Disston, Henry & Sons, Philadelphia, Pa

Scales
Beckman Bros., Des Moines, Ia
Osgood Scale Co., Binghamton, N.Y
Pelouze Scale & Mfg. Co., Chicago, Ill

Screen Hinges
Kees, F. D., Beatrice, Neb
Screen & Storm Window Fastener Co., New Castle, Neb

Screws
Atlas Bolt & Screw C Cleveland, O
Columbus Bolt Works, Columbus, O

Screws—Hand
Chapin-Stephens Co., Pine Meadow, Ct
Ohio Tool Co., Columbus, O
Sandusky Tool Co., Sandusky, O

Screw Drivers
Hurwood Mfg. Co., Bridgeport, Ct
North Bros. Mfg. Co., Philadelphia, Pa

Shears
Bertsch & Co., Cambridge City, Ind
Niagara Mch. & Tool Wks., Buffalo, N.Y
Weiss, H. & Co., New York, N.Y

Sheet Metal Ornaments
Friedley & Voshardt, Chicago, Ill
Gerock Bros. Mfg. Co., St. Louis, Mo
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Sheets—Black and Galvanized
Berger Mfg. Co., Canton, O
Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Interstate Steel Co., Brackenridge, Pa

Shelf-Brackets
Atlas Mfg. Co., New Haven Ct

Shelving—Hardware
American Bolt & Screw Case Co., Dayton, O

Shovels
Avery Stamping Co., Cleveland, O
Star Shovel & Range Co., Vincennes, Ind

Sifters
Stuber & Kuck, Peoria, Ill

Skylight Gearing
Weiss, H. & Co., New York, N.Y

Slate
Auld & Conger Co., Cleveland, O
Johnson, E. J. & Co., New York, N.Y
O'Halloran & Jacobs, Pittsburgh, Pa

Soldering Furnaces
Clayton & Lambert Mfg. Co., Detroit

Soldering Irons
Bartholow, W. P., Minneapolis, Minn

Sporting Goods
Enterprise Mfg. Co., Akron, O

Squares, Machinists'
Disston, Henry & Sons, Philadelphia, Pa
Stanley Rule & Level Co., New Britain, Ct

Stampings—Sheet Metal
Globe Machine & Stamping Co., Cleveland, O
Hoerle, W. M., Allegheny, Pa

Staples
Titchener & Co., Binghamton, N.Y

Stoves and Steel Ranges
Beckwith, P. D. Estate Dowagiac, Mich
Bergstrom Stove Co., Neenah, Wis
Champion Steel Range Co., Cleveland, O
Culter & Proctor Stove Co., Peoria, Ill
Dangler Stove Co., Cleveland, O
Eclipse Stove Co., Mansfield, O
Gem City Stove Co., Dayton, O
Germer Stove Co., Erie, Pa
Globe Stove & Range Co., Kokomo, Ind
Harkins, T. B. Fdy. Co., Bristol, Pa
Joliet Stove Works, Joliet, Ill
Kontny, John, Chicago, Ill
Malleable Iron Range Co., Beaver Dam, Wis
March-Brownback Stove Co., Pottstown, Pa
Marion Stove Co., Marion, Ind
Pittsburgh Stove & Range Co. Pittsburgh, Pa
Star Shovel & Range Co., Vincennes, Ind
Toledo Stove & Range Co., Toledo, O

Stoves—Gas
Pittsburgh Stove & Range Co., Pittsburgh, Pa
Silver & Co., Brooklyn, N.Y

Stoves—Gasoline
Detroit Vapor Stove Co., Detroit, Mich

Stoves—Oil
Nat'l Enamel. & Stamp. Co., Milwaukee
Silver & Co., Brooklyn, N.Y

Stove Carriers
Kramer Bros. Fdy. Co., Dayton, O

Stove Casters
Kramer Bros. Fdy. Co., Dayton, O

Stove Cement
Dixon, Jos. Crucible Co., Jersey City, N.J

Stove Clay
Bridgeport Crucible Co., Bridgeport, Ct
Nickel Plate Stove Polish Co., Chicago
Williams Stove Lining Co., Taunton, Mass

Stove Linings
Williams Stove Lining Co., Taunton, Mass

Stove Mats
Stuber & Kuck, Peoria, Ill

Stove Patterns
Cope Pattern Wks., Detroit, Mich
Harkins, T. B. Fdy. Co., Bristol, Pa
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N.Y
Weller Pattern Co., Quincy, Ill

Stove Pipe
Dunlap Mfg. Co., Dunlap, Ia
Excelsior Steel Furn. Co., Chicago, Ill

Stove Pipe Thimbles
Stuber & Kuck, Peoria, Ill

Stove Polish
Nickel Plate Stove Polish Co., Chicago

Stove Repairs
Brauer, A. G., St. Louis, Mo
Buckeye Fdy., St. Paul, Minn
Des Moines Stove Repair Co., Des Moines, Ia
Dust, Wm. T. Co., Detroit, Mich
Great Western Stove Repair Co., Minneapolis, Minn.
Kramer Bros. Fdy. Co., Dayton, O
Manufacturers' Stove Repair Co., Chicago
Morris, J. L. Stove Repair Co., Chicago, Ill

Sugar Kettles
Sperry & Co., Batavia, Ill

Tapes
Lufkin Rule Co., Saginaw, Mich

Thermometers—Oven
Evans Stamping & Plating Co., Taunton, Mass

Tinplate
Berger Mfg. Co., Canton, O
Canton Steel Roofing Co., Canton, O
Eller, J. H. & Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Garry Iron & Steel Co., Cleveland, O
Illinois Roofing & Supply Co., Chicago, Ill
Lee-Glass-Andreesen Hdw. Co., Omaha
McClure Co., Philadelphia, Pa
Merchant & Co., Philadelphia, Pa

Tinware
Block & Co., New York
La Lance & Grosjean Mfg. Co., Chicago
Nat'l Enamel. & Stamp. Co., Milwaukee
Stuber & Kuck, Peoria, Ill

Toilet Paper Holders
Franklin Specialty Co., Reading, Pa

Trowels
Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Philadelphia, Pa

Ventilators
Friedley & Voshardt, Chicago, Ill
Globe Ventilator Co., Troy, N.Y
Merchant & Co., Philadelphia, Pa
Powers Bros., Streator, Ill

Wagons
Sycamore Wagon Wks., Sycamore, Ill

Washing Machines
Boss Washing Machine Co., Cincinnati, O
Brammer, H. F. Mfg. Co., Davenport, Ia
Clark, Quien & Morse, Peoria, Ill
Crammond, J. H., Waukegan, Ill
U. S. Washing Machine Co., Racine, Wis
Voss Bros. Mfg. Co., Davenport, Ia
White Lily Washer Co., Davenport, Ia

Water Coolers
Major, A., New York, N.Y

Window Fasteners
Screen & Storm Window Fastener Co., New Castle, Neb

Wire Goods
Denning Wire & Fence Co., Cedar Rapids, Ia
Titchener Co., Binghamton, N.Y

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS

HUBERT E. PECK, 623 F St., N. W., Washington, D. C. Consulting Expert in Patent Causes U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications."

Wanted—To exchange an equity in 240 acres of Iowa land for a good clean hardware business in a good live town. Address Box 92, Emington, Ill. 10

To Exchange—A well located improved Iowa farm for a good stock of hardware or implements. Address Land, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 10

For Sale—Tinshop with established trade in oil field and best farming district in Ohio. Address J. H. Bowers, Rawson, O. 10

Wanted—To sell clean new stock hardware; invoice about $6,000, in central Minnesota city of 10,000 inhabitants; a good chance to do business; reasons for selling, want to go West on account of health. Address Lock Box 1595, Brainerd, Minn. 10

For Sale—A good clean stock of hardware, stoves, paint, etc.; tinshop in connection, in Wisconsin town of 2,000 inhabitants; splendid farming country surrounding town; stock will invoice about $7,000; last year's sales about $16,000; reason for selling, sickness; no traders considered. Address Wisconsin, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 10

For Sale—A clean stock of hardware, stoves, tinware, furnaces and plumbing goods; invoice about $5,500; sales last year, $15,000; 28 years at hardware and want to quit. Write L. B. 407, Hudson, Mich. 10

For Sale—160 acres improved, good buildings, 3½ miles northeast from Gary, for sale at $2,200 per acre; succumbed for $625; will accept valuable village property to the amount of $1,000 as part payment. G. E. Pladsen, Gary, Norman Co., Minn. 10

For Sale or Lease—320-acre farm, four and one-half miles from Wimbledon; surface somewhat rolling; good soil; 220 acres under the plow; small house, well, etc.; cash price $22.00 per acre; will trade for good stock of hardware. Address A. Y. More, Wimbledon, N. Dak. 9

For Sale—A good hardware business in a good town in northeast Missouri, doing $12,000.00 worth of business a year; if you want a good business address at once to Box 68, Wayland, Mo. P. S.—Will sell or rent building. 9

For Trade—Owner will trade all or part of 320 acres good land in North Dakota for stock of hardware; land is near good town in booming country. For square deal address Lock Box 315, Alden, Minn. 9

For Sale — Hardware, furnace and plumbing business for sale cheap; party is leaving town; reason for selling. Address Lyman Bros., Paw Paw, Ill. 9

Wanted—Catalogue and prices of airtight, hot blast soft coal stoves. Address Box 11, Watseka, Ill.

For Sale—Will sell on liberal terms the best hardware business in the best growing city in the Northwest; this is a snap; incorporated, $10.000 capital; annual sales $35,000.00. Address J. S. Jackson, 603 New York Life building, St. Paul, Minn. 9

For Trade—An improved one-quarter section of land in Clay Co., Minn., for a hardware stock; every foot can be plowed; joining lands produce from 28 to 35 bushels of wheat and sixty to eighty bushels of oats per acre. Address J. J. Link, 693 Ravine st., St. Paul, Minn. 9

Wanted—New or second hand, one bolt case, one screw case and hardware shelving. E. J. Schlafly, Beach City, Ohio. 9

Wanted—To buy a stock of hardware in a country town in Wisconsin, Minnesota or Dakota; give amount same will invoice, sales, rents, size of town, list of all business places, churches and schools, and nationality of people. Address Lock Box 14, Kimball, Minn. 8

TINNERS' TOOLS.

Wanted—A few second-hand tinner's stakes and circle shares; must be cheap. Alvah G. Richison, Eagle River, Wis. 9

Wanted—One pair second-hand squaring shears for use in book bindery for cutting straw board, etc. Address W. M. Welch Co., Anamosa, Iowa. 9

For Sale—One four-foot Excelsior gutter beader; one large burring machine with patent standard Niagara make; new one set of stove pipe rolls 2 in. by 30. Address J. H. Bowers, Rawson, Ohio. 8

HELP WANTED.

CLERK or BRIGHT YOUNG MAN to fit for Gov't Position. Starting salary $800. Promotion as deserved. I.C.I., Cedar Rapids, Ia

Wanted—Tinner with a little cash to invest in an established stove, tin, hardware and agricultural business; must have full knowledge of general job work, furnaces, pumps and some plumbing; want a man who will stick; chance for advancement. Address Artisan, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 10

Wanted—At once, a good, steady, sober tinner and furnace man, who can make estimates on and do all kinds of furnace, tin work, slate roofing and steel ceiling work; must be able to figure from plans; also must be able to go out and take orders; must give best of reference; state wages in first letter. Address M. Reinhardt's Sons, Lincoln, Ill. 10

Wanted—At once, a good tinner, who thoroughly understands furnace work, hot water and some plumbing, to take charge of shop and steady work the year around and good wages to right man; must be absolutely sober and honest. Address Honest, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 10

Wanted—A good tinner for inside and outside work; one who can do hot water heating preferred; state wages for steady job, also experience. Smith & Stewart, 5624-26 So. Boulevard, Austin Station, Chicago. 10

Wanted—Tinners and tinners' helpers; first-class men with experience at making pieced tinware; state age, salary expected and where you have been employed. Supt. Flat 3, 183 14th St., Milwaukee, Wis. 10

Wanted—An all-around tinner that can speak German and has had experience clerking in store; is pleasant to trade; honest, reliable, sober man; steady work guaranteed to the right man; married man preferred; state salary wanted and give references. W. R. Yahr, Princeton, Wis. 10

Wanted—Good all around tinner; a good and steady job for the right man and good wages; Kenton, O., is a good city to live in. Address J. Fink & Sons, Kenton, O. 10

Wanted—Good all-around man to take charge of and do shop work, spouting, slate roofing, gutter work and hot air furnace work; a young married man preferred; must be strictly sober. S. P. Zehrung, Roseville, O. 10

Wanted—A good tinner at once; one who has had some knowledge of plumbing and furnace work; steady job by the year; wages $12.00 per week; no boozer need apply. Address H. A. Brouillet, Lansing, Iowa. 10

Wanted—A tinner that is willing to do any kind of work I may have, tin, sheet iron, eave troughing, roofing, furnace, pump or windmill work; state wages wanted and experience. Address M. C. Corsett, Colon, Mich. 10

Wanted—A tinner and all-around hardware man by April 1st; one having some knowledge of furnace work; must be strictly honest and temperate; married man preferred; will give such a man a steady job and treat him right; state wages expected and enclose references, which will be promptly returned. Box 464, Pocahontas, Ia. 10

Wanted — A tinner, single man preferred; must be good workman; be sober and industrious; state wages and give references in first letter. Address Box 36, Ireton, Iowa. 9

Wanted—A first-class tinner that is temperate and understands all kinds of general job work and can take charge of a shop, to whom we will give steady work and good wages the year around; correspondence solicited. Address Steady, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 9

Wanted—Young man that can do outside work and can clerk in store, in fact willing to work at anything in store; to right party steady job by year; state wages wanted and age. Address A. J. Kronsbein, Malvern, Iowa. 9

Wanted—Experienced tinner; must understand furnace work; steady employment to good man; must be strictly temperate; state experience and wages wanted; references required. Address D. C. Purdy & Sons, Highland Park, Ill. Suburb of Chicago. 9

Wanted—By April 1st, an all around mechanic for a shop in connection with a hardware store; one that can do tinning, furnace work and pipe fitting and general repairing; steady job; state wages, age and experience in first letter; none but a sober, reliable man need apply. Address E. J. Ketchhum, West Duluth, Minn. 9

Wanted—Good all around man that can do shop work, hot air and hot water heating; also to work in store; good steady job for the right man; $12.00 per week. Address Iowa, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 9

Wanted — A good tinner who understands furnace work, pipe work and can do plumbing; steady job to strictly honest and temperate man. Address M. Armbruster, Eagle Grove, Iowa. 9

Wanted—At once, a good tinner who understands tin work, guttering, furnace work, pipe work and some plumbing; steady work to the right man; state wages and experience in first letter. Address, with references, to Reed Puchner, Wittenberg, Wis. 8

SITUATIONS WANTED.

Wanted—Position by a young man, a German, good references, who wishes to learn the tinner's trade; have had some experience as clerk. Address 575 W. 12th st., Chicago, Ill. 10

Wanted—Position as salesman with hardware or stove house; two years on road, or with retail hardware firm; five years in retail business. Please write H. W., care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 10

Wanted—Position in retail or wholesale hardware business; have had 16 years' experience as manager of retail hardware business, including farm implements, windmills, pumps, etc.; am familiar with all the details, including buying and collecting; good salesman and have good references. Address X2, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 10

Wanted—Position as clerk in retail hardware store by Scandinavian with 9 years' experience in retail hardware. Address Scandinavian, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 10

Wanted—Position as clerk in retail hardware store; am well acquainted with the general line of hardware and furniture; can furnish the best of references. Address H. J. R., Lock Box 144, Bryan, Ohio. 9

Situation Wanted—By a practical tinner and furnace man, with some good reliable firm; can sell and install your furnaces and take charge of shop; can give best of references. Address Lock Box 313, Franklin Grove, Ill. 9

Situation Wanted—Tinsmith, by a competent all around man 35 years of age; — years experience in jobbing; general bench and assortment work and furnaces; would like to make a change by April 1st. Address, with full particulars, G. S., care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 9

Wanted Position—As tinner by first-class tinner; have had fifteen years' experience at bench, and good on hot air furnaces. Address C. McClelland, Shelbyville, Ill. 9

Situation Wanted—By a young married man as tinner; inside, outside and furnace work; can clerk; no booze fighter; state wages or letters will remain unanswered. Address Tinner, Lock Box 148, Platteville, Wis. 9

SPECIAL NOTICES.

WANTED

Tinners to learn furnace heating and ventilating by the H. & V. Correspondence System. Full particulars and valuable information free. HAYDEN & VERPLANK, 6910 Kimbark Ave., Chicago, Ill.

WANTED

A resident salesman for St. Paul and Minneapolis, northeast Minnesota and Wisconsin, for a No. 1 line of stoves, ranges and furnaces. Don't apply unless you have road experience and acquainted in the territory. State age, experience and salary expected. Address Wm. H. H., care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 3t.10

WANTED

Round and Sectional Hot Water and Steam Boiler and Radiator Patterns. Address Patterns, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 1t.10

WANTED

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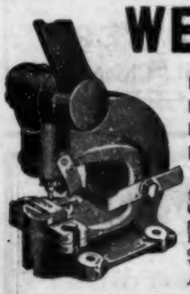

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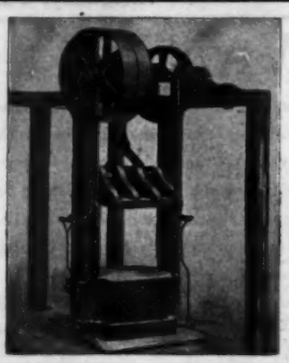

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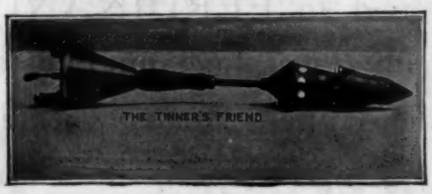

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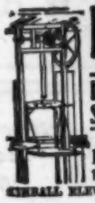

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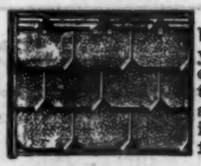

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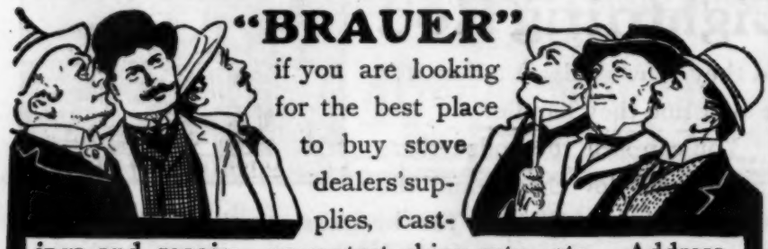

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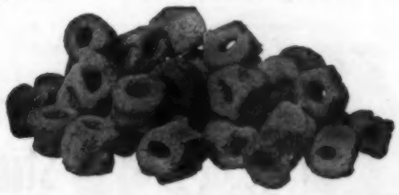

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Screen and Storm Window Fastener

It's Adjustable!

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They're cheap; they're neat; they're a good selling specialty.

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Screen and Storm Window Fastener Co.,

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Bolt and Screw Cases

Save Time and Money

A necessity for Hardware Dealers, Machine Shops, Pattern Shops and in fact any one who handles small articles; last indefinitely. Send for descriptive booklet.

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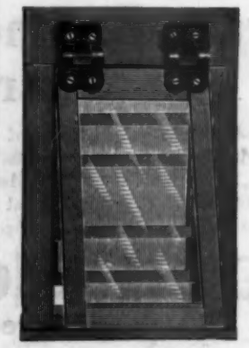

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Has Gears protected by shield or cover.
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" Either stave or detachable legs.
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It has powerful coil springs, correct balance, instantaneous action and terrific concussion. Operates easy. Once tried, always used. Only washer to-day that pleases them all. Get our prices and terms.

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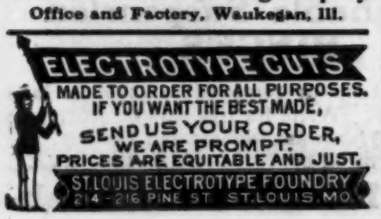

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Superior in workmanship and material, giving complete satisfaction to dealer and customer.

OUR NEW GAUGE

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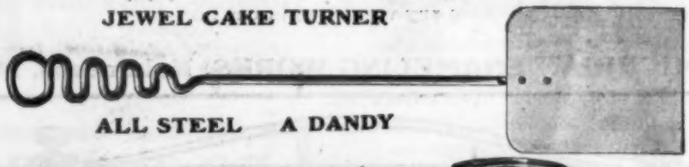

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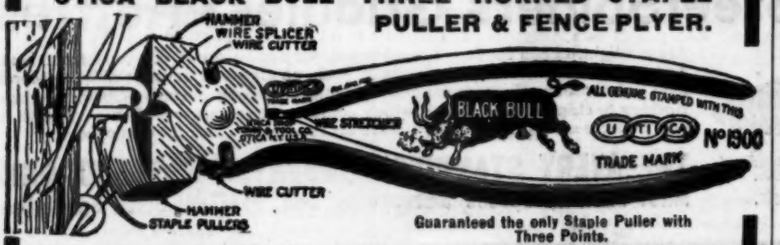

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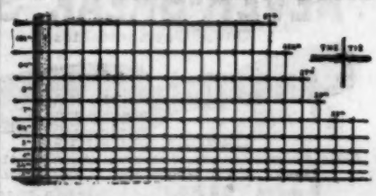

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Best crucible ⅝ inch steel, hand forged and tempered.
Our catalogue describes others.
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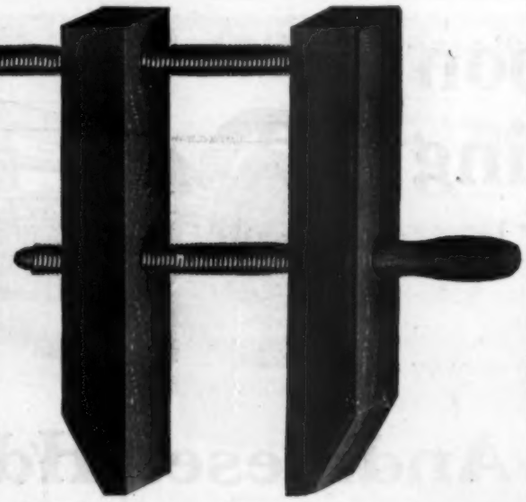

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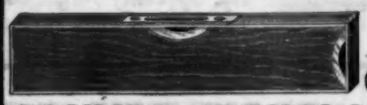

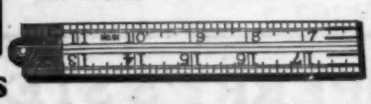

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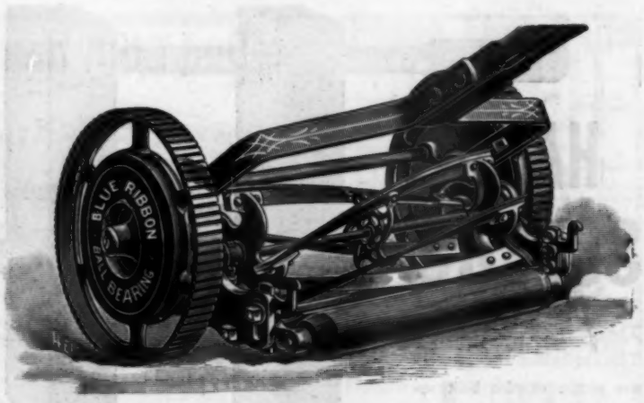

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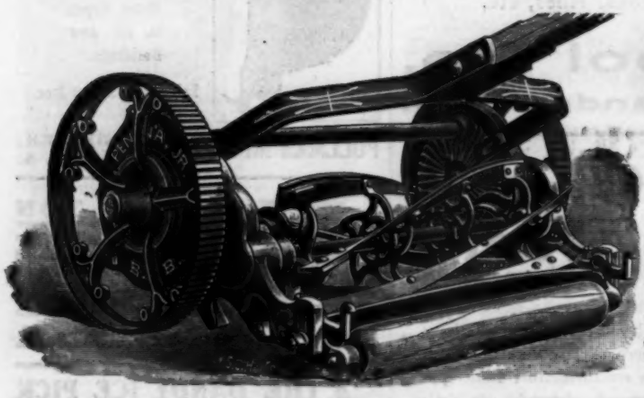

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THE MOWER that will **Kill all the Weeds in Your Lawns.** If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders of roots, the grass will become thick and the weeds will disappear. **The CLIPPER will do it.**

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Please send Draft, P. O. Money Order or Express Money Order or Registered Letter.

Rely on yourself—invest your money in YOUR OWN business—advertise.

EASY EMPTYING GRASS CATCHERS

are now made with

GALVANIZED STEEL BOTTOMS

having adjustable Front Flange, as well as with regular duck bottoms. Made in two sizes, which fit any size or make of lawn mower, and are guaranteed to give entire satisfaction.

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Made from very thick metal, without Stay Bolts, joint packed in such a manner as to never need repacking. A little higher priced than some, but they are safe and tight.

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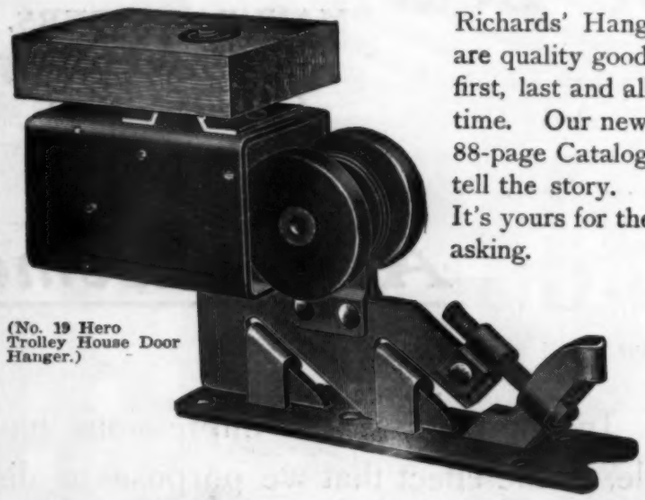

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Used by all railroad shops, machine, automobile and bicycle shops, etc.

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Announcement

In some way, false impressions have been given to the trade, to the effect that we purpose to discontinue the use of labels bearing the names and trade-marks of our various Works; and in their place and stead, to use on the product of these Works labels bearing the American Fork and Hoe Company's name. Not only is this not true, but it has never been contemplated, but on the contrary, *we propose to continue to use and protect these various brands or labels*, and *to apply them to our First Quality Goods* as heretofore—*the names or brands of:*—

Ashtabula	**Ely**	**Geneva**	**Otsego**	**Utica**
Batcheller	**Fort Madison**	**Columbus**	**Withington &**	
Bolles	**Philadelphia**	**Harriman**	**Cooley Mfg. Co.**	

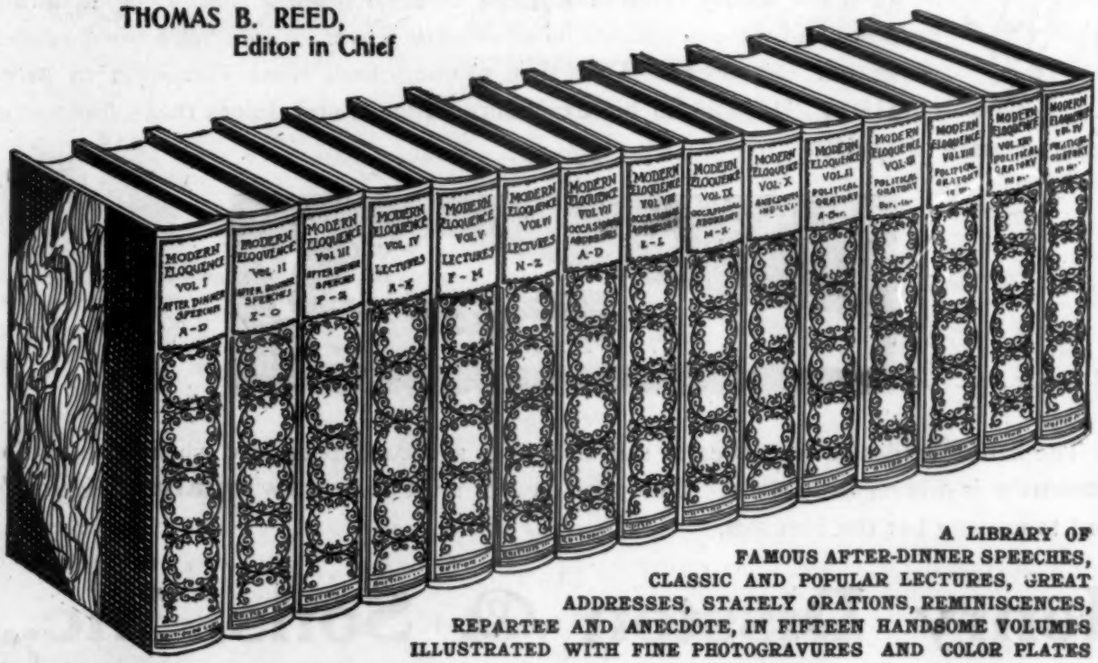
and the various Special Labels used by these Works *signify superlative Quality*; they are a valuable asset and are so recognized by the trade. Look therefore for some one of the above mentioned names on all of our First Quality Goods.

We intend also to continue the practice, so highly valued by the Buyers, of giving exclusive sale, so far as possible, in their particular market, of the same line which they have heretofore controlled.

"The work that has made spoken thought a part of standard literature."

MODERN ELOQUENCE

THOMAS B. REED,
Editor in Chief



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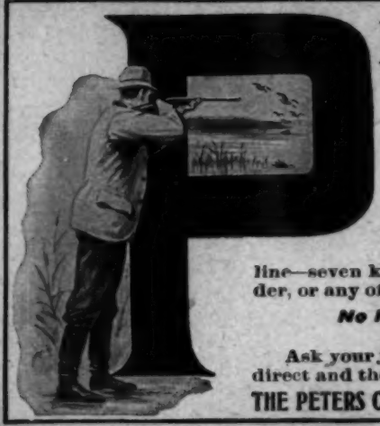

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